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Planning and
Civic Annual

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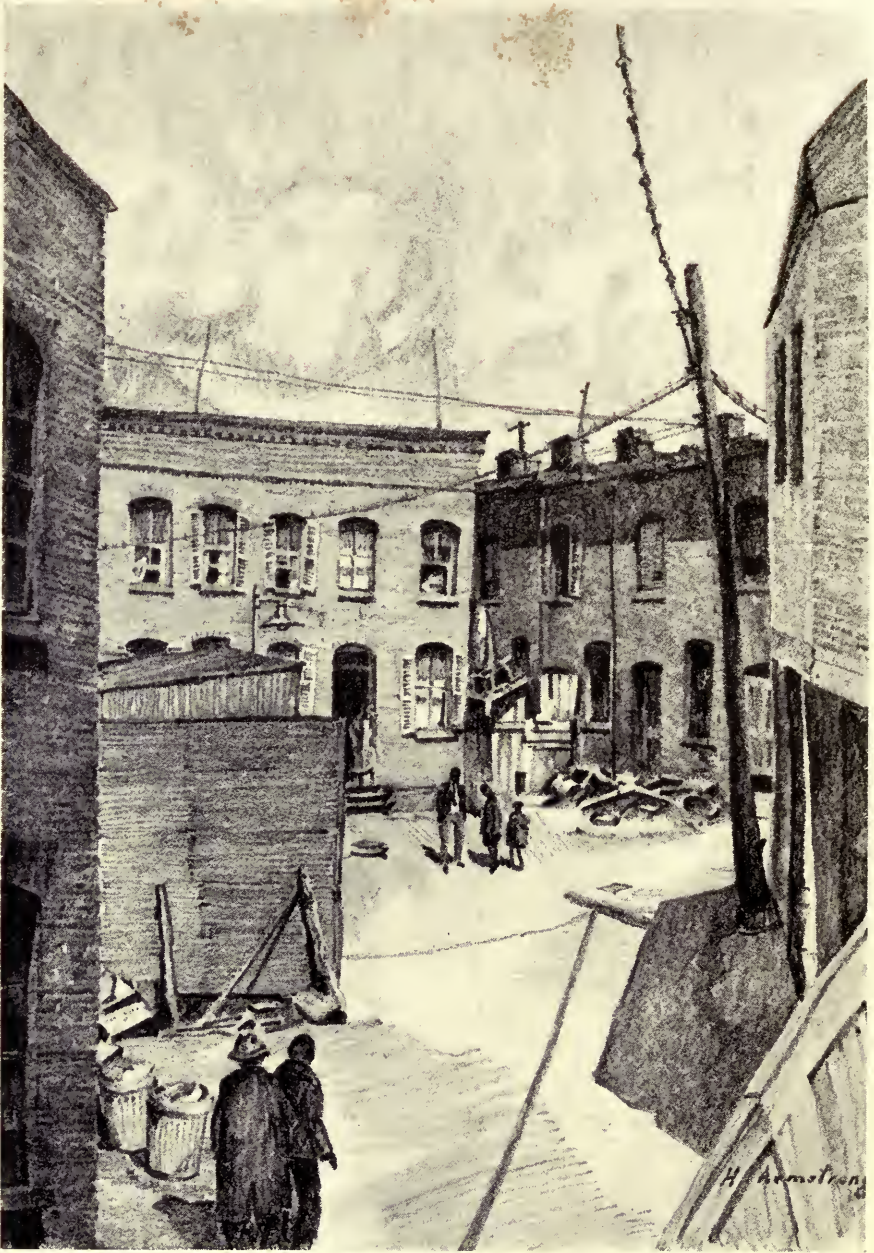


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**AMERICAN PLANNING
AND CIVIC ANNUAL**







Public Works of Art sketch by H. Armstrong, showing Alexander Court, an Inhabited Alley in the National Capital, typical of conditions being replanned by the Alley Dwelling Authority.

Courtesy Alley Dwelling Authority

AMERICAN PLANNING AND CIVIC ANNUAL

A RECORD OF RECENT CIVIC ADVANCE, INCLUDING THE PAPERS READ AT THE NATIONAL PLANNING CONFERENCE, DETROIT, MICHIGAN, JUNE 1, 2, 3, 1937, AND SELECTED PAPERS FROM THE REGIONAL STATE PARK CONFERENCES HELD AT SAN FRANCISCO, CALIFORNIA, SEPTEMBER 1, 2, 3, 1936, AND SAINT LOUIS, MISSOURI, NOVEMBER 13, 14, 15, 1936, AND FROM THE NATIONAL CONFERENCE ON STATE PARKS HELD AT SWARTHMORE, PENNSYLVANIA, JUNE 10, 11, 12, 1937

EDITED BY
HARLEAN JAMES

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FOREWORD

HORACE M. ALBRIGHT, President, American Planning and Civic Association

WHEN we in the United States, about the turn of the century, first began to talk about city planning, we heard it mentioned timorously and apologetically. Businessmen, especially, were skeptical about these new-fangled proposals. The first proposals to correct the obvious mistakes of the past sometimes involved large expenditures but not very often did they promise a made-over city. They accepted far too much as inevitable.

In the past forty years we have learned many lessons. We know now that we must learn something of the past history, the present position and the possible future trend before we can venture to propose suitable remedies. We know that we must have trained technicians to analyze the assembled information and propose sound remedies for the long-term future as well as for the immediate present. We know that in order to bring about desired changes, not now, perhaps, familiar to the public, we must have public understanding and support. We know now that planning is good business and many businessmen accept that fact.

It is not in keeping with the American temper or history to balk at stupendous undertakings. It is only when the public is smothered by petty routine and uninspiring, but expensive, palliatives that it becomes lethargic. The American imagination is easily inspired to achievement on a grand scale.

While the *process* of planning is dependent on technicians, the *results* of planning affect the environment of all of our citizens. It is of the utmost importance to every citizen that good planning methods be employed, but under our form of government, good planning methods are likely to be employed only when there is public sentiment back of them. This is equally true of planning on all levels of government—local, county, state, regional and national.

It is the task of the American Planning and Civic Association to keep its members, who come from all parts of the United States, informed of what is going on in the field of planning, especially of the newer developments, so that forward-looking citizens, as well as public officials, may become accustomed to current trends and be ready to give intelligent support to soundly based proposals for improving the living and working conditions of the American people.

This year we present in a single volume the thoughtful papers read at a number of important conferences held during the year. The National Planning Conference, held at Detroit, June 1, 2, 3, 1937, was a joint meeting of four organizations—the American City Planning Institute,

the American Planning and Civic Association, the American Society of Planning Officials, and the National Economic and Social Planning Association.

Selected papers which were delivered at two regional and one National Conference on State Parks are included in the ANNUAL because it is thought that they contain valuable information and even more valuable advice from those who have acquired experience and judgment in dealing with state-administered areas.

It should be recalled that at the time, in 1935, when the National Conference on City Planning and the American Civic Association merged into the American Planning and Civic Association, the National Conference on State Parks voted to join with the new Association in the use of the ANNUAL and the quarterly, PLANNING AND CIVIC COMMENT.

The ANNUAL does not pretend to give a balanced analytical treatise on what has happened during the year, gaging the length of treatment by the importance of the subject. Rather it takes advantage of the best thought of specialists, as expressed in their programs of meetings and in specially prepared papers, giving accounts of recent events, up-to-date facts and attempts to define current trends and new objectives.

We know that much has been omitted from the ANNUAL which might have been pertinent, but, with the wealth of material available, it has been necessary to use a sharp editorial pencil. We would like to think that everything we have presented is essential to the best interpretation of what the past year has meant in planning and all that it involves.

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THE NATION

NATIONAL PLANNING

Introduction

FREDERIC A. DELANO, Chairman, Advisory Committee, National Resources Committee, and Chairman of the Board of Directors, American Planning and Civic Association

THERE has been a great deal of confusion about the aims of national planning. The National Resources Committee had little precedent by which to steer its course. When the American Civic Association and associated organizations published in 1929 the little book "What About the Year 2000?" we had come to realize the need for striking a balance between the vanishing natural resources and the rapidly stabilizing population of our country. During the past four years the National Resources Committee has assembled a great deal of information concerning our static resources and trends of dynamic forces. Perhaps in this way we can find out where we seem to be going. The destination toward which we are obviously headed may not be the place to which we would like to go, if we had a choice. In addition to facts and forces, therefore, we are seeking desirable goals.

In this period of intensive and extensive research we may profit by an open mind applied to information and discussions presented by those who by training and experience have become experts in their lines. In the papers which follow there will be found epitomized a great deal of up-to-date information and many indications of trends on which to base prophecies.

Believing as we do that there is no reason why human beings should suffer from preventable ignorance and *laissez faire*, we can endeavor to use the best thought of our generation in setting the pattern of environment for our people. The objective is that the American people shall be beneficiaries instead of victims of our civilization.

Does America Have a Future?*

DAVID CUSHMAN COYLE, Consultant, National Resources Committee

ONE of our worst symptoms in the United States of America is that we have acquired the Midas touch. Midas, you remember, was a fellow who, every time he touched anything, turned it to gold. He died by trying to swallow a hot potato which turned into gold in his throat and choked him.

In California there was some fertile, beautiful, level agricultural land, well watered, capable of supporting people for an indefinite period into the future. It was worth \$200 an acre. Then one of these dredge companies turned the dirt upside down and now it is a waste of gravel.

*Condensed from an address delivered at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

They got enough gold out of it to pay the \$200 an acre and the cost of dredging and a good profit and they buried the gold in Kentucky.

Down South we make cotton to export to foreign countries. One of the criticisms of the AAA has been that it spoiled the export market for cotton by raising the price. Americans do not realize that the net effect of exporting cotton to foreign countries is that for every bale of cotton that we export we deposit 50 tons of top soil in the Mississippi and one ounce of gold in Kentucky. So we have learned to turn land into gold.

Phosphate rock is something of which we have a comfortably large supply at present. Phosphate rock is the bones of civilization. Savages and animals can live on the land for thousands of years without needing any phosphate rock because all the phosphate they take out of the soil they return to the soil, but civilized man sends his sewage to the sea and his bones to the churchyard. He has to take phosphate rock out of the mine to replenish his soil. We are exporting phosphate rock for gold to put in Kentucky. Our children can patch their teeth with gold but they cannot make bones out of gold.

We have forgotten the ancestral virtue of thrift. Our ancestors saved food for the winter. Our ancestral pioneer farmers saved by taking the rocks off the soil and building a stone fence so that they had a better field than they had before. They saved valuable property that would make it easier for their children to run the farm than it was for them. We do not. We save money which we give to investment brokers to invest in foreign bonds. We are like the sophisticated Scotchman, living in the environs of Edinburgh, who was sore because they changed the tram rates to Edinburgh. He said, "Now I have to walk to Edinburgh five times to save a shilling instead of only four."

We have come to a crisis in this disregard of wealth and love for money, which was nurtured during the long period when we needed capital for building new railroads and cities and new oil wells. But now in an East Texas oil field, I am told, where ten wells are needed to drain the whole field, there are now 24,000 wells and hundreds more being drilled every year. In the days when we needed capital, when we had to borrow it from England and the continent, we learned to love money rather than wealth. Now we have come to a crisis because of the great increase of technology in this country. We have come to the place where we can destroy wealth for the sake of money faster than our ancestors ever dreamed of. Where they cut down forests, it was with hand axes and great labor. They ploughed the land with one horse or one ox at the plough, whatever they could get, sometimes even a cow as I have seen in Maine. We do things faster than any of our ancestors. The time has come when it really is a question whether there is going to be enough wealth left for our children so that they can be free, for don't forget that freedom depends on wealth, and the nation that is jammed within narrow borders like that of Germany is forced to have a dictatorship.

Peru is the oldest example of a nation forced by poverty and circumstances to an ant-like discipline in order to preserve its soil. They built soil on which to feed themselves at a cost of thousands of dollars an acre, as we would reckon it in our labor values, because they had to. They had to have a discipline that would make them do it as a price of survival.

Freedom depends on having room for our elbows. We are crowding ourselves, not much yet, but the speed at which we crowd ourselves is increasing. It has taken us 300 years to occupy this country. During that 300 years we have really not destroyed very much of our national wealth, only ten billion dollars of land values, for example, so far destroyed by soil erosion. That is not much in a country with eighty billion a year of national income in 1929, but our rate of progress is increasing.

And in our greed for money we have also learned to destroy our people at a rate that is disquieting. Most of our children for the next generation are being born in backward rural areas where there is not a proper public health service, where there is little educational opportunity. Those children are going to be brought up with every disadvantage, and they are the future American citizens. Those who live in the city where there are good schools don't have children. We are not the ones who are replenishing the American people. We have imposed a general insecurity on the middle class of our country that is forcing them into restriction of their birth rate so that by our financial arrangements and by the way we run our country we are degenerating our people. Not that the stock of our country people is inferior to the stock of our city people. We have no indications that there is any inferiority in a share-cropper so far as his biological stock is concerned. The old American hill-billies of the Tennessee mountains and North Carolina are the same stock as the most successful people in the United States. But we are putting a heavy disadvantage on the young people who are going to be the fathers and mothers of the majority of our population.

In Europe, as one of our anthropologists pointed out in the *Scientific Monthly* a year or so ago, during the time of the war we imposed on the Central Powers and the war itself imposed on some of the other nations starvation of children, rickets, stunted growth and everything to make them inferior physically, to give them disadvantages in their education and in their health. How did they behave afterwards? Those are the nations that are having dictators. They are militaristic. What do we hope for our country if we pay no attention to the kind of people that we are going to provide for future generations?

For 300 years the American people have never balanced their economic budget. We have lived on our capital ever since we arrived here. Of course, when we arrived here, there were only a few of us; there were only three million at the time our republic was founded. They could not destroy our capital very fast—it seemed to be inexhaustible. Since then we have grown to nearly 130 million people and now we are living on our

capital high, wide and handsome. It is not even occurring to us that it is immoral to live on our capital. The very idea of budget balancing has never dawned on the American people, but it is time it dawned.

The government is accused of not balancing its budget. The American people never had any idea of budget balancing and they have no idea of balancing their budget now. In fact, right at this moment, another of these fits of economy is going on in Washington, the object of which is to cut down on those services that help to preserve our national wealth for the sake of trying to preserve the balance of the treasury. Again we want the money, not the thing.

We need not criticize our ancestors because they destroyed great virgin forests and left the desolation that some of you know about. We cannot criticize them for that, because the people arrived here and found a great new continent that had to be occupied. It was a new enterprise and we had no security for ourselves; we had to cut down the forests to keep off the Indians and we had to keep ourselves from starving to death while we were organizing this country. That is what a corporation calls organization expense. During the early years of our great enterprise, it was perfectly fair and considered perfectly sound finance that it should run in arrears, but the time must come in any enterprise when it must begin living on its income or else it will fail and disappear.

The crisis has been brought on by technology and by the terrific drain on resources of this high-power age in which we now live. That crisis is forcing the American people to grow out of the period of our adolescence when we wasted extravagantly, thinking nothing of the future. We have got to come to a maturity when we can think about future generations and about the prosperity of our successors.

The evidence of the beginning of our maturity is indicated in such meetings as this, of people who are interested in planning. Planning is a word that was seldom used in this country until this century, but now many people are interested in planning. We are beginning to look at our country as our estate inherited from our ancestors and as a heritage to be handed down undamaged to our posterity.

The first thing that stands at the gate of national planning is the tremendous complexity of social and economic factors in our civilization. Denmark and Sweden stand out as places where a race of exceptional genius has met situations that apparently were not wholly beyond the possibilities of the human mind to grapple with; but in our country, with its great differences of climate and population and ideals and ways of looking at things, with a long history of disorder and extravagance and wastefulness, it is something to make us sober when we think of it. The first thing that we have to remember when we begin thinking of plans is that in our country we must have at the beginning and at every stage in the operation of plans the consent and coöperation of nearly 130 million people, only 45 million of whom are interested enough to go out and vote

in a national election. They are going to have opinions about things, they are going to see some of the detail and some of the more generalized pictures of the country, they are going to criticize everything that is done, every mistake that is made, every good thing which has secondary effects that are not good. Unless it is possible to get the consent and practical coöperation of a working majority of the American people, the plans, however good, cannot be carried out in and under a democratic form of government. It seems to be true from what we observe in other nations that if democracy fails, automatically the nation will go to some kind of dictatorship. So far as we can observe from recent history, the only way that a dictator can keep going with the coöperation of his people is by keeping them constantly excited with military adventure. A program of military adventure, used as the means of obtaining coöperation from the American people, is the one method that we have knowledge of, that would lead us into more waste than we have now. Unless we can find ways of planning under democratic methods to bring our country to balancing the economic budget, we are not going to bring it to a balanced economic budget at all.

There are two ways that we can approach the problem of national planning for a permanent nation on this continent. One is by way of operational plans.

Operational plans have to do with the great evils that we see—the symptoms of things that are the matter with our nation, the tremendous capital losses, the overproduction in some places and underproduction in other places, the sweating, the slums, the failure of housing—all of those things we can attack. It is natural that we should feel a desire to go out and attack every evil that we see, that we should feel the natural American desire to make an organization and go out and do something about everything. But when you come to the question of planning the whole nation, you are up against the fact that these things interlock, that the network of secondary and tertiary and nth'ary questions all over the nation have so many effects that it is beyond the human capacity to understand them all.

If we try meeting each one of these things by putting a policeman beside every citizen, telling him what to do so that it will be in conformity with the national blue print, the first thing that we run into is the fact that the American people will not stand that much regimentation. We had our experience with prohibition. The American people passed a post-graduate course in not obeying laws they did not believe in. We can think of a dozen different evils that we might cure by regimentation if you could only manage it, but you can't.

Now there is another way of approaching national planning, and that is by the use of planned economic forces and planned social forces. All our customs, all our institutions and all our laws have effects of all kinds and sizes. Hamilton's plan for increasing manufacturing in the

United States was one of the first instances in our history of planning economic changes. He did not put a policeman behind every citizen and say, "Now you must set up in manufacturing instead of going into farming." No, he did not pick out so many States and put farmers in and so many and put factories in; what he did was to change the flow of money in such a way that it went into the hands of the people who wanted to build a factory.

Under social and economic forces, I shall mention two. One of them is education. I don't mean we must look forward to folks of all kinds being educated to the point where they will understand everything. The average American citizen has not the time nor the inclination to read scientific reports or lengthy government documents or economic books of a kind to explain everything to him. That is not what I mean, but it is true, I believe, that those who are in charge of our Government have got to look more in the future than they ever have in the past to that function which is stated in the Constitution as the duty of the executive to report to the American people on the state of the nation. That is, they must be told what they are up against. They must be told the major items about what this country is all about and where we stand and where we are headed; so that in the main the people, who, after all, can see a barn door if it is in front of their noses, will know what these things are. And the major part of this process consists, I believe, of educating the American people to visualize our whole country as our estate which we are supposed to take care of.

Another great economic force which we can utilize more than we have in the past is the planning and proper design of our tax system, which is at present an unhealthy mess, as everybody knows who has looked into it. As one of our businessmen said in a report which I am sorry to say is confidential, "Any immigrant who comes to this country and swears that he does not believe in anarchy, must be surprised when he finds the kind of tax system he is supposed to live under."

We can use taxes because taxes are the most powerful instrument of democracy, as distinguished from dictatorship. There are two ways of making things happen. One is to tell the people that they must do thus and so and another is to put taxes on the community in such a way that it is more profitable to do one thing than another, so that it is most profitable to do the things that are best for the community. Then those are the things that on the average will be done.

If we can so arrange our tax system as to improve the distribution of income and economic security of the great mass of our people, a great many of our other problems that seem to be almost hopeless as they stand will no longer be so hopeless. You can see at a glance that a better distribution of income will more than half solve such problems as sweatshops, as disease and crime, as this housing problem which the Government has been struggling with unsuccessfully for three years now.

Then we can go out and clean up around the edges without overstraining our minds.

The same way about crime. If we can offer opportunities for young men to make a decent living, if we can fix conditions so that it is evident to any intelligent young man in the slums that the best road to success and fame is not gangster rackets, there will not be so many gangster rackets. If we can give people money enough so that they can have adequate medical care for their children, we won't have to spend so much money taking care of them in hospitals.

This distinction between operational plans which most of us professionally have to deal with and which I, as an engineer, have had to deal with all my life, this difference between operational plans and the planning of social and economic forces, is somewhat synonymous with the distinction that is made in political theory between collectivistic and strategic or interventionist planning.

Collectivistic planning is related to operational planning in this way, that in theory the only way you could handle the whole country on an operational plan basis is to have the engineer run it from Washington, because one thing leads to another and one thing gets mixed with another and finally you have got to have some omnipresent omnipotence who sits in the middle and makes everything and arranges everything to a successful conclusion. Try and believe that in America.

That is the conclusion to which you come if you depend on the operational plan which we all have to deal with professionally as the salvation of America, but if you take these operational plans as being only a part of the planning system in which the heaviest work is to be done by the proper planning of social and economic policies, then the operational plans fall into their place as the engineering implements, as the detail of such matters as conservation, soil erosion, flood control, irrigation and all these different things that we have to do. They have their place, they are perfectly practical in a democratic system so long as there are overhead plans of which they are a part.

Now, if we can place our thinking in its proper category so that the kinds of plans which city planners and state planning organizations and the National Resources Committee deal with are in their proper place in our thinking, then I believe that we can keep our minds free to contemplate also the necessity of looking at our country as a whole. Our country is a great social organism which must have a proper distribution of its income and a proper planning of the flow of its money, not only as between economic classes but as between those areas which are debtor areas from which the money is drained and the metropolitan areas to which it flows; a country which has to have its strategic material resources carefully conserved; a country that has to have its people regarded as the source of our future citizens who must be conserved, who must be brought to a state of health, must be properly educated, and be

given such opportunities that the genius which springs up spontaneously in all classes of our people will not be wasted and that we may at all times have the best utilization of all our available resources. If we consider our country from both of these aspects, with operational planning in its proper place, with social and economic thinking in the proper place, then I believe America has a future. With all our waste we have not destroyed the country yet. Perhaps the dust storms were sent to us by a beneficent Providence to put the fear of God into us, but they did not actually destroy a very large percentage of our country. We still have a generation in which either to turn the tide of history toward a permanent country or else to turn it toward that same development that occurred in Babylon, or in the Mayan civilization of Yucatan, that came, grew, flourished and were glorious and failed to conserve their soil, failed to conserve their national resources, failed to conserve their people, and passed out of history.

Which it will be depends largely on our generation and on the generation which is immediately to succeed us. We stand at the cross-roads; we ourselves and our immediate successors will make or break America.

Rural Land Use Planning

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THE concept of land use planning as a public function in the United States has been in the process of evolution for the past half century. Prior to about 1880, there was little conception of public planning of land use; such land policies as we had were concerned with land disposal, on the assumption that private ownership of the land would insure wise use.* Consequently, every possible effort was made to transfer public lands to private owners.

The land use planning concept began with the conservation era late in the nineteenth century. The public had become concerned about the destruction of the forests, the exploitation and despoliation of the country's most magnificent scenery, and the diminution of the game. Particularly was there a fear of an acute shortage of timber, and the preservation of the forests, scenic resources and wildlife was conceived of as a legitimate field for public action. Also some concern was expressed over the progressive destruction of the soil by erosion. Depletion of the range by overgrazing, however, had not yet come to public notice, and another generation was to pass before these matters were to attract widespread attention.

Early efforts at land use planning took the form of public reservation of certain of the areas of the public domain for forests, parks, water-

*Gray, L. C. "Land Planning." Public Policy Pamphlet No. 19. The University of Chicago Press. 1936. Page 4.

power development, and game refuges. Later, acquisition of land for such uses by purchase or gift was authorized.

During the post-war depression in prices of farm products, when the word "surpluses" was in wide use, public attention was centered on land use planning as a means of controlling production, and a great program of public purchase of sub-marginal farm land was advocated as a means of reducing the acreage devoted to "surplus" crops.

More recently there has developed a concept of land use planning as a means of placing all of the country's lands into their most economically and socially desirable uses, so that, in the aggregate, they will best subserve the general welfare. Assuming that the population of the United States still has not passed the optimum point in relation to all of the natural resources, this concept of land use planning would imply keeping the population directly dependent upon the soil at such a point that the soil would provide the greatest possible per-capita incomes for the greatest possible number of people. Such a program undoubtedly is desirable to keep in mind as a long-time objective. It can be approached only by degrees, however. For the immediate future, this objective probably can be furthered most practicably by a program for prevention or reduction of certain obvious misuses of the land. It should be directed primarily toward such readjustments in land occupancy, land ownership and land use which will prevent or reduce human destitution, large waste of public funds and waste of land resources.

All three of these conditions exist with respect to America's rural land. Thousands of farm families are stranded on land too unproductive, or on holdings too small, to provide them with anything approaching what we consider an American plane of living. Other thousands are destitute or nearly so on good land, on account of cultural deficiencies and unfavorable tenure conditions. The rural slums of the country are as deplorable as the slums of the cities. Widespread destitution on the land has been attested to by findings of the Federal Emergency Relief Administration, that the greatest percentages of the population on relief are found in certain rural regions in which the majority of the people live in the open country, in villages or in towns of less than 5,000 inhabitants.*

The millions of acres of land which have been destroyed or impoverished by wind and water erosion have been widely publicized only during the past few years. This destruction has been dramatized during recent years by the dust storms of the Great Plains and by the spectacular gullying of some of the humid lands, but similar destruction is occurring more insidiously through sheet erosion over additional great areas.

Millions of dollars of public aids in the form of state aids and sub-

*Beck, A. G. and Forster, M. C. "Six Problem Areas—Relief—Resources—Rehabilitation." Federal Emergency Relief Administration, Division of Research Statistics and Finance. 1935. Page 4.

ventions to local governments, relief, emergency loans and rural rehabilitation grants, have been expended in the areas where the present pattern of land occupancy, tenure and use are leading to low incomes and waste of resources. Expenditure of these funds usually has been necessary to prevent total destitution or the breakdown of local government functions. But continuance of these expenditures may merely delay the readjustments which must be made to alleviate the necessity for such aids.

PROCEDURES IN LAND USE PLANNING

Two general types of procedures in land use planning are possible in the United States. The first is the direct procedure of planning by public bodies of the uses of the lands which they already have in their possession or which they propose to acquire.* More detailed, blue-printed planning can be effected through this procedure. It is applicable to the half-billion acres now in the hands of the Federal Government, the States and the counties, or to about one-third of the area of the country.

With respect to the other two-thirds of the land, which is in private ownership, another type of procedure, more indirect, must be utilized to effectuate land use planning in the public interest. In so far as private ownership of land is not absolute, the States can regulate land use to a certain degree through the power of taxation, the power of eminent domain, and the police power. Beyond this, however, both the States and the Federal Government may, in certain instances, "take steps which create an opportunity for the individual, wherein he will likely choose to act along lines leading to the general objective."† Such opportunities are created by the soil conservation and domestic allotment program of the Federal Government.

The second type of procedure is peculiarly suited to our democratic institutions. Even under the police power, which is the chief instrument of control of land use in the public interest by the States, a thoroughly democratic procedure may be followed which will lead local communities to cooperate voluntarily to reduce or prevent abuses of the land. This procedure is exemplified by the soil conservation district laws, which have been enacted in 22 States, following a pattern worked out by the United States Department of Agriculture.

The standard soil conservation act makes possible the creation of machinery which farmers can use voluntarily when they are convinced that soil erosion control on all of the land in a certain district is necessary, and through which they can compel recalcitrant minorities to adopt conservation practices in the public interest.‡ The act provides the

*Gray, L. C. Op. cit. Page 2.

†Ibid. Page 3.

‡Glick, Philip M. State Legislation for Erosion Control. Land Policy Circular, United States Department of Agriculture, Resettlement Administration, July, 1937. Pages 19-24.

procedure for the organization of local soil conservation districts as governmental subdivisions of the State, the districts to have the power to establish and administer erosion control projects and preventive measures and to prescribe land use regulations in the interest of the prevention and control of erosion.

Any 25 land occupiers may petition the State Committee established under the Act to establish a district, but the question as to whether a district should be created must be submitted to a vote of all the land occupiers living within these boundaries, and a majority of the votes cast must be favorable to authorize the establishment of a district.

The board of supervisors of a district may formulate an ordinance prescribing land use regulations for soil conservation. If, when submitted to referendum, the ordinance is approved by a majority of all the land occupiers, it has the force of law.

Rural zoning enabling acts, which have been passed in a number of States, provide a democratic procedure of a somewhat different type through which local communities can enact ordinances restricting certain uses which are contrary to the public interest in certain areas, after submission of the question to all of the voters.

RECENT ACCOMPLISHMENTS IN LAND USE PLANNING

Prior to the World War, as noted above, public land use planning had been confined largely to the reservation and management of forest and game refuge lands from the public domain. The economic difficulties which beset agriculture in the post-war years stimulated interest in land use planning for farm lands. The depression beginning in 1930 greatly heightened this interest, which during the present Presidential administration culminated in the inauguration of several Federal programs of land use planning both by the state and the national governments. These include the agricultural conservation and soil conservation programs, the establishment of grazing control on the public domain, the inventory of land resources by the National Resources Board, the land acquisition program and the movement for relocation of stranded rural population, the Great Plains Committee report, the Farm Tenancy program and the flood control program.

Soil Conservation. One of the first acts of the President under authority of the National Industrial Recovery Act was to establish by executive order a Soil Erosion Service. This organization later was established as a permanent agency in the Department of Agriculture by Act of Congress as the Soil Conservation Service, to conduct a comprehensive program of soil erosion control. The Soil Conservation Service is now carrying on operations in 171 demonstrational areas in 45 States. It is directing the work of 450 CCC camps and conducting erosion control studies on some 23 experiment stations.

The Soil Conservation and Domestic Allotment Act, which was

passed as an amendment to the original Soil Conservation Act, provides for the payment of benefits to farmers for controlling or curtailing the acreages of soil-depleting crops and for increasing the acreages of soil-conserving crops and following certain cultural and engineering practices which will control soil resources.

Grazing Control on the Public Domain. For more than half a century the grazing lands of the public domain were subjected to overgrazing. Efforts to correct this situation extended over many years, culminating finally in the passage of the Taylor Grazing Act, enacted in 1934, which provided for organization of grazing districts in areas with a large percentage of public domain grazing land, in which grazing would be subject to control by the Department of the Interior. The Division of Grazing Control, established in the Department of the Interior under this Act, has now set up grazing districts covering about 135,000,000 acres of the public domain. All public domain lands have been withdrawn from homestead entry by executive order of the President, pending classification.

The National Resources Board Inventory of Land Resources. The first task of the National Resources Board, established in 1934, was to prepare a report on land and water resources. A Land Planning Committee was appointed to supervise the preparation of the report on land resources. The report of the Land Planning Committee "covers broadly the principal problems of surface uses of the land. It takes stock of the present and probable future requirements for various products of the land, and inventories the available land resources which may be used to satisfy these requirements. It points out maladjustments in present land uses and advocates public policies for correcting such maladjustments."*

The Land Acquisition Program. Another land use planning program which was started in 1934 was the purchase by the Federal Government of land in agricultural use but unsuited to that use. Through the land purchase program, now administered by the Resettlement Administration, over 9,000,000 acres of land is being acquired for the purpose of instituting desirable land uses to replace the unwise and largely futile uses to which the land was being put. The program involves principally the purchase of poor farm lands, and their conversion to uses to which they are better suited, such as forestry, grazing, wildlife protection, recreation, watershed protection, and flood control. In addition, from allocations of emergency funds the land acquisition program for national forests has been greatly enlarged.

The majority of the families on these lands, together with several thousand other families stranded in rural areas, are being relocated on better land under a resettlement program.

*National Resources Board. "A Report on National Planning and Public Works in Relation to Natural Resources." Part II. Report of the Land Planning Committee. December, 1934. Page 90.

Continuance of the submarginal farm land acquisition program has just been assured by passage of the Bankhead-Jones Farm Tenancy Act, which under Title III authorizes appropriation of \$50,000,000 for this purpose during the next three years.

Report of the Great Plains Committee. In view of the protracted drought in the Great Plains Region, with its attendant crop failures, dust storms, and increasing destitution and dependency, the President in 1936 appointed a Great Plains Committee, composed of heads of government agencies concerned with various land programs in the Great Plains, to explore and report on the possibilities of the region to maintain reasonable standards of living for the largest possible population. The Committee, reporting early in 1937, recommended a program of Federal acquisition of scattered crop farms and conversion of these farms to public grazing lands under organized control, Federal assistance to farmers in increasing the size of too-small holdings, further conservation and development of water resources, resettlement of certain poorly located families, further development of non-agricultural resources, and state action to authorize zoning in rural areas, to promote the organization of coöperative grazing associations, to encourage erosion control, and to facilitate equitable tax assessments and the taking of state or county tax title to tax-delinquent lands.

Substantial submarginal land acquisition and soil conservation programs have been concentrated in the Great Plains drought area.

Report of the Special Committee on Tenancy. The growth of farm tenancy in a nation which began with owner-operation of its farms has been so rapid as to command national attention. Late in 1936 the President appointed a special Committee on Farm Tenancy to examine and report on the most promising ways of developing a land-tenure system which will bring an increased measure of security, opportunity and well-being to present and prospective farm tenants. The Committee's report recommended, among other measures, a program of purchase of farms by the Federal Government, for resale to tenants and farm laborers, a permanent system of rehabilitation credit for distressed farm owners and tenants, and a special capital gains tax on sales of land made within three years of the date of purchase. The Committee also recommended state legislation to provide for improvement of agricultural leases, consideration of differential taxation to promote owner-operation of farms, and provision for guarantee of civil liberties of tenants, croppers, and agricultural laborers.

Recently, the Bankhead-Jones Act was passed by Congress, providing for a system of loans to tenants to enable them to purchase farms, for the establishment on a more permanent basis of the present program of rehabilitation loans for distressed farmers, and for the continuance of the program of submarginal land purchase which was instituted under emergency legislation.

A Land and Water Program for Flood Control. A coördinated land and water program has been authorized, for the first time, by the Omnibus Flood Control Act of 1936, which declares that flood control on navigable streams and their tributaries is a proper Federal function in coöperation with the States, and that flood control requires not only improvement of rivers but also treatment of lands that shed water.

Under the Act responsibility for improvement of rivers and waterways rests with the War Department; responsibility for investigations and measures for run-off and waterflow retardation, and for prevention of soil erosion on watersheds, with the Department of Agriculture. In addition to specified control operations, the Act authorizes preliminary surveys on specified watersheds by the Departments of War and Agriculture. Funds for these surveys have just become available.

Rural land use planning in the United States is in its infancy. During the past few years some progress has been made in the matter of finding out the physical and psychological conditions in which planning must develop. Some kind of planning, it would seem, is necessary if the country's future population is to be allowed to enjoy our natural resources. The problem is to develop motivations and institutions which will enable us to utilize our resources democratically and with wisdom. A start has been made. Only through continued public interest and support can rural land use planning go forward.

Farm Tenancy*

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ONE of the important ideas around which many discussions have been built in recent years is that of *change*. On every hand, we hear of changed economic conditions, changed social conditions, or a changed civilization. I call to your attention certain changes that have occurred and are occurring in the general nature of our land-tenure system.

It is an obvious and patent fact that this Nation was founded, and continued to exist for many years, as one in which the ordinary farm was a family-sized unit operated by its owner. The farm was both a home and a business enterprise. Its owner, its manager, and its cultivator were the same person. Today, the situation is vastly changed. The family farm is still the most significant size of production unit, but it is on the run in several areas, and a continuing mechanization of agriculture holds questionable promise for its future. Moreover, we have proceeded past the half-way mark in separating the ownership from the operatorship of our farms. Slightly more than half of our farmers do not own all the land they operate.

*Condensed from a paper prepared for the National Planning Conference, Detroit, June 1, 2, 3, 1937.

According to the 1935 Census of Agriculture, there are about 2,865,000 tenant farmers in the United States. These are farmers who rent all of the land they operate. They represent slightly more than 42 per cent of the total number of farmers in the country. In addition to these tenants, there are approximately 689,000 part-owners—farmers who own part of the land they operate and rent a part of it. This group of part-owners represents about 10 per cent of all our farmers. Hence, approximately 52 per cent of the farm operators in the United States rent all or a part of the land they farm. An additional one per cent of our farmers are hired managers. There is also a large group of farm laborers. Their number is unknown, and only recently have their living conditions or other characteristics attracted serious attention. Since the tenant group—the farmers who rent all of the land they operate—is much greater than the other groups, the center of emphasis throughout this discussion pertains to tenancy.

Farm tenancy is not evenly distributed over the United States. To a great extent it is closely associated with the production of staple cash crops. The recent report of the President's Special Committee on Farm Tenancy indicates that 41.4 per cent of all tenant farmers in the United States are in the Cotton Belt, and that 65 per cent of all the farmers in the Cotton Belt are tenants. The Corn Belt of the Middle West includes about 15 per cent of all tenant farmers in the country, and about 45 per cent of all Corn Belt farmers are tenants. Hence, in these two great cash crop areas, we find about 56 per cent of all the farm tenants in the United States. Areas of cash crop production, such as the tobacco, wheat, rice, and sugar-producing areas also have a high percentage of tenancy.

No other large area of the country has as high a proportion of tenancy as the cotton-growing South. In vast areas of the Cotton Belt more than two-thirds of all farmers are tenants, and in many counties the percentage is more than 80. A large number of both whites and blacks rent their farms. However, it cannot be truthfully said that farm tenancy is purely a southern problem. Fifty per cent of all the farmers in Iowa were tenants in 1935, and the same was true of more than 49 per cent of all farmers in Nebraska. Several of the Middle Western States run well above the national average. There are small areas in Illinois, Iowa, South Dakota, and Minnesota, in which more than 60 per cent of all farmers are tenants. In the West, the proportion of farms operated by tenants is relatively low, averaging only 24 per cent for the eleven Western States. However, the percentage of land operated under lease is high. Thousands of acres of western land are rented for grazing purposes, but since most of the ranch operators own a part of their land they are not classified by the Census as tenants. About 43 per cent of all western land in farms was operated under lease in 1935.

The growth of tenancy has been rapid in recent years, but tenant farming is not wholly a new development. We have accounts of tenant

farming in this country as early as the colonial period, although we do not have nation-wide Census figures previous to 1880. At that time 25 per cent of our farms were operated by tenants. *Since 1880 tenancy has continued to increase until, as I have said, more than 42 per cent of our farmers now rent all of the land they operate.* There were especially rapid gains in both the number and proportion of tenant farmers during the period from 1920 to 1930. And today, we have more farm tenants than ever before in the history of the country.

To a certain extent, American agriculture has been following the same route traveled by industry during the Industrial Revolution. Two centuries ago, the predominant type of industry was the small shop, in which the capital, the management, and most of the labor were vested in the same person. During the Industrial Revolution, this type of organization broke down. Capital and management came to be vested in one person while labor was vested in another. The process of segregation continued, and was given great impetus by the rise of the corporate, or limited liability, type of business organization. That process has now gone to the point where we have not just two classes (capitalists and laborers) but, in many industries, three classes—the capitalists, the managers, and the laborers.

American agriculture has been, and still is, going through an analogous process. The farm of our forefathers was one in which the functions of owning, managing, and laboring were all in the hands of the same individual. As tenancy has grown, these functions have been parcelled out to different individuals. Outside of the South, the development of tenancy has resulted in the owning function being vested in one person, the landowner, and the two functions of managing and laboring being vested in another person, the tenant. In the southern plantation areas, and to a lesser extent throughout all areas of the South, both the owning and managing functions are vested in the landlord, and only the laboring function is left to the tenant.

The segregation of the owning, managing, and laboring functions of industry into three separate hands, and the consequent development of three distinct classes in society gave us a new type of industrial civilization. Will the same thing be true in agriculture? And, if it will, is the nation ready to face the task of adjusting its policies, ideals, and national attitudes to the new type of agricultural civilization? If not, shall we attempt to direct these changes in our land tenure system toward a goal different from that to which they appear to be leading?

There are three generalized attributes of our tenancy system which have caught the public eye. Each of these attributes appeals with different force to different people. They serve as three focal points around which pressure for action has gathered. I shall describe them to you.

Most of the tenants in this country hold the farms they operate on a one-year contract. They have no assurance from one year to another that

their lease will be renewed when it expires. Hence, they have little opportunity and no incentive to follow a system of soil-building crop rotations; to accumulate livestock, and seed the necessary pasture and hay land; or to exercise the myriad of detailed practices which represent continuous managerial effort toward maximizing the return of the total farm unit. Capital must be kept in a movable form. Crops that can be harvested and sold within a year are desirable, if not necessary. Operating plans must be for short periods and subject to complete abandonment or quick change. As a consequence, the total efficiency of our agricultural plant is greatly reduced, and, at the same time, some of our best land resources are being more rapidly depleted than is necessary or desirable.

Those persons who are deeply impressed by the need for soil conservation, together with those to whom increased efficiency in production is an important goal, make up one group which thinks that something ought to be done about our tenancy situation. They see that soil depletion and inefficiency result from the insecure or transitory manner in which most tenants hold and operate their farms. Hence, they are in favor of increasing the security of the tenant farmer.

Decreased aggregate efficiency and depletion of resources are not, however, the only consequences of our system of tenancy. We have a fairly large body of evidence which indicates that tenants do not participate in community activities to the extent that owner-operators do, and that a high percentage of farm tenancy is inimical to the development of churches, schools, libraries, coöperatives, and similar organizations. When we realize: (1) that about one-third of our tenants move at the end of every year; (2) that the tenant's moving period is often about the middle of the school year, with the consequence that many children have to transfer from one school to another; and (3) that most tenants have no assurance that they will be within a given community for more than one year at a time, it is easy to understand why tenancy tends to pauperize the social life of our rural communities.

Among those people who are impressed by these shortcomings of our tenancy system, we find a second group who believe that something should be done about tenancy. The teachers, the preachers, the sociologists, and the laymen who see the necessity for good schools, churches, libraries and a mutual spirit of neighborliness, are quick to grasp the significance of the destructive rôle played by a highly insecure and unstable group of tenant farmers. And, as for the remedy, they see eye to eye with their more prosaic brethren that I have mentioned above. Insecurity of tenure looms large to them as the root cause of the trouble. Hence, the remedy is to increase the security of tenure.

In the South, where the ownership and management of the farm, and often the tenant's source of short-term credit, are all vested in the landlord, we find certain effects, or apparent effects, of tenancy which are not evident in other areas. As long as the tenant, willingly or unwillingly,

relies on his landlord to do his managing for him, he remains a poor manager himself. As long as the landlord will extend credit when the tenant is out of cash, the tenant remains a poor financier and learns nothing of thrift. The training which a tenant receives under close supervision is so lacking in the business responsibilities which it places upon his shoulders, that tenancy is a poor apprenticeship for future farm owners. This is especially true in the plantation areas. A tenant may operate a 15- or 20-acre tract on a large plantation without gaining the least insight into the problems of organizing and operating a small farm of his own.

The general situation in the South with respect to the manner in which landlords supervise their tenants, forcefully impresses people who are strong believers in individual freedom, and in the necessity for guarding the future of democratic institutions. And here we find a third group which thinks that something ought to be done about tenancy. They are not totally unmindful of the inefficiency, the depletion of soil, and the handicaps to sound community institutions, which are associated with tenancy in practically all areas, but to them such phenomena are of minor importance. They see, or think they see, human oppression, a curtailment of freedom, and a growing threat to democracy, because the masses of southern tenants do not develop initiative, self-reliance, and independence of thought.

Their remedy is different from that of the other two groups which I have mentioned. Instead of allowing tenants to remain as tenants and giving them greater security of tenure, they want to aid them in becoming owners. They agree that security of tenure is the goal, or ultimate objective, but ownership, they say, is merely a means of attaining security; hence, let us *talk* in terms of security, but let us *have* ownership. They have seen that the power to manage, to supervise, to control, goes with land-owning in the South. They want to take that power to manage and control from the few, and give it to the many. To promote ownership, they think, is the way to do this. These saviors of democracy are split into two camps with respect to the type of ownership which they want. One camp says that we should promote the individual, owner-operated, family-sized farm. The old American ideal, in other words, is what they want. In the South, it is often described by the phrase, "40 acres and a mule." The proponents of this view have two fairly common characteristics: their political philosophy is that of the old-time Jeffersonian Democrat, and their geographical background is the rolling uplands of the South, where farms are small. The other camp says that we should promote coöperative farm ownership and operation. They argue that advances in technology and mechanization have already made the family-sized farm an inefficient unit, and that it is doomed to pass out of existence. The large-scale coöperative farm they view as the logical alternative. They also have two fairly common characteristics: their political philosophy leans rather heavily toward Socialism, and their geographical

background is the Mississippi Delta and similar areas of level fertile land, where large plantations are common.

The President's Farm Tenancy Committee recommended a course of action in its recent report, aimed primarily at increasing the security of the tenant operator. However, it also recommended an ownership program, on the grounds that the promotion of ownership is one means for increasing security. The ownership program recommended by the Committee would have for its major aim the establishment of family-sized, owner-operated farms. But the Committee also suggested that experimentation with coöperative ownership be carried forward on a modest scale. The individual farm ownership program conceived of by the Committee was one in which farms would be purchased by the government and resold to select tenants on a long-term contract of sale. Full title would not be given the tenant-purchaser until at least 20 years had elapsed from date of purchase. This is quite a different procedure from that provided for in the bill that was recently reported on favorably by the House Committee on Agriculture. The President's Tenancy Committee discussed, and rejected, the ordinary type of loan procedure which has been proposed by the House Agricultural Committee.

If we follow the easiest and most expeditious course in providing security of tenure for farm tenants, we will not be concerned primarily with the promotion of farm ownership. Security for tenants can be had by following the general principles of the English system of regulating both landlord and tenant. Much can also be accomplished by education in bringing about the use of better lease contracts. In a society where absentee ownership of farms is fairly stable; that is to say, where the turnover in farm ownership among non-farming owners is not high, we can work out a system of farm leasing by which the tenant operator will be given security of tenure. If we choose to take this general line of attack in this country, our first step should be toward increasing the stability of farm ownership among non-operating owners. It is probable that this can best be done through stabilizing farm income, and by preventing land speculation. In so far as I know, the methods for stabilizing income and preventing land speculation have not yet been developed. But they are absolutely essential to the success of any kind of tenancy program which I can visualize.

Once we succeed in getting a fairly stable land ownership base, especially among non-operating owners, we have cleared the way for promoting security of tenure among tenants. We might then introduce, either by education or by regulation, the use of leases which are automatically renewable from year to year, unless notice is given by either party six to nine months in advance of the date of termination. The tenant would then know when he would have to move several months in advance of moving day. He could make his farming plans for six to eighteen months in the future. If, at the same time, we put into practice

a system of regulations forcing the landlord to compensate the tenant for unexhausted improvements which the latter may leave on the farm when he ceases his period of occupancy, we will have made a great forward step in providing an incentive for building up the farm. If the landlord is forced to compensate the tenant for unused improvements which the latter leaves on the farm, then the tenant should be forced to compensate the landlord for unnecessary deterioration.

If we put into effect these principles of compensation, they will not only encourage the maintenance and improvement of the farm, but they will have a further tendency to lengthen the tenant's period of occupancy of a given farm. If it is necessary, we may have to go the full route which the English have traveled, and force the landlord to compensate the tenant for unreasonable disturbance. In the South, where a large segment of the rural population is inexperienced in managing its own affairs, and where wide-spread poverty is a source of much insecurity, we will probably have to follow a different policy. The granting of rehabilitation loans which are coupled with technical guidance and a farm management plan is probably the best procedure which has yet been developed to increase the security of a large number of our southern tenants.

If we follow the general policy of accepting tenancy, and set about making the operator secure in his relationship to the farm, we will be deciding that we want a rural society in which land is owned by one person, cultivated by another, and perhaps managed by a third. It will be a society made up of two or three classes of people, each with different interests to be considered in many matters of public policy. We will be saying that the old ideal of the owner-operated farm, in which owning, managing, and laboring were all vested in one person, can be forgotten and a new type of organization accepted.

If we make individual farm ownership our goal, instead of security of tenant tenure, we will be going back to the old form of organization in which owning, managing, and laboring are all vested in the same person. This will give us the general type of farm organization which we had in this country before the development of farm tenancy, and which still exists on about half of our farms. Essentially, it would be a policy of re-establishing the old American ideal—the Jeffersonian farm. It would be a costly and slow program, and unless we were able to work out a type of ownership superior to that which we have had in the past, the general effects of the program might be lost within a generation. It has a strong psychological appeal among our tenant population, most of whom want to become farm owners. If properly administered, it could be a more potent tool by which the ability to manage a farm could be developed among our lower class tenants than is possible under the rehabilitation loan program or by regulation and education.

Methods of Promoting National Production*

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IT IS the purpose of this paper to discuss production in its most extended sense. It is concerned with the total of national productivity—all of the things that can be produced for the use of men and women in the nation. Of course, it is well recognized that production can be planned nationally. Every modern government in time of war assumes the responsibility of controlling, and to a considerable extent, the productive enterprise of the nation. In the emergencies of peace, also, centralized governmental planning and control may be far-reaching. There is an assumption made by many that it is possible to *increase* production by central planning of a mandatory kind. But it is a little hard to prove that this type of planning will actually provide more things for human consumption and increase the general standard of living.

Historically, national attention has been given to the planning of those facilities of most immediate need in times of war. Lines of communication, roads, bridges, the development of harbors and waterways usually have their first justification in terms of national defense, and historically that has been the beginning area of national planning.

The ends of the State itself are variable. We are seeing a great deal of politico-economic planning in European dictatorships, where it appears to be, in part at least, directed toward the glorification of the State and the exaltation of the heroic leader of the State. The Cult of the Hero carries with it a peculiar kind of economic and social planning. It may be highly efficient, or it may reflect the stupidity or whim of the dictator. It may seek by mandate to benefit the people, or merely to improve the nation's position as war-maker. But, even when efficient, its aims are different from those of a democracy, and its methods not applicable in a democratic State.

The basic aim of the democratic State is the promotion of human happiness through the participation of all its citizens in economic, social and political processes and decisions. And, because of this participation of its citizens in its affairs and processes, the democratic State has a continuous responsibility and a continuous urgency to facilitate in every way possible the increase of national income. In a democracy, planning must be directed to the final end of providing more things for all people, a continuous improvement of living status, a continuous sharing by all of the gains of technological advance. No planning fully justifies itself in a democracy unless it has a positive relation to continued increase of national productivity, improvement of standards of living, and an increased share to everybody of the things produced. And the progressive increases in our national income must be made in such ways that it flows

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through the pockets of the whole population and does not get sidetracked or wasted en route.

The democratic process of central promotion or planning is quite different from the mandatory kind of planning. It must reflect popular desire and popular will. It can be vigorous and strong, but not mandatory. It must be intelligent, but not assume super-intelligence. Democratic planning can gain the acceptance of a democratic citizenry only if it carries its own guarantees of intelligence and purpose that are acceptable to popular understanding and desire.

During the past eight years much of the thinking and most of the effort of all the men and women concerned in our economic life has been directed toward holding together the economic structure and restoring it to use. During part of that period simple restoration was an end in itself. Now that task is done and we can look forward to further gains.

During this period of depression the farmer, the worker, the investor and the businessman have been struggling desperately to maintain their group existence in our economic world. In that struggle of each for himself, it is not surprising that old group hostilities have continued and in some cases increased. I believe that some of these group hostilities in the industrial and commercial field, the differences between city and country, between worker and business, have a different origin and are more remediable than is generally recognized.

Our economic problem has all too frequently been assumed to be one of deciding how the national income shall be divided. It is to obtain their fair share of the national income that groups are organized, production controls devised, strikes called, fair trade practices established. Labor has wanted a fair wage, business fair profits, investors fair returns, and farmers a fair living. While no group has wanted more than it thought fair for its members, the pressure of each for a fair share has crowded the others by restrictions that have come to be increasingly used by all concerned.

The depression revealed that a good many of our largest industries operated under a system of administration of prices, sometimes upon a basis of concealed understandings, in which lowered general purchasing power was met by reduction of output rather than of price. Wide-spread and effective restriction of output exists in American industry.

The various steps taken by the government to bring about a working economic balance between city and country, farmer and industrial worker, agriculture and business, have all directly or indirectly, immediately or remotely, had some restrictive quality.

Certain segments of labor impose considerable restrictions. Labor, however, is organized much less effectively than business, and even less effectively than agriculture. In consequence, labor union restrictions have been applied only in very limited industries, such as some of the building trades.

But restrictions are becoming more exacting and the tendency toward new ones increases. The desire of all economic groups is for balance, and the method of the recent past has been to achieve such a balance through more and more restrictions. It is at least equally logical, and I think much better for many reasons, for us to get the desired balance in another way. The effort of all groups might well be shifted to new ground; instead of concerning ourselves merely with the problem of how to divide what we have, we might well concern ourselves with the problem of *how to produce more to divide*.

Each group operating separately has found that its instrument of group gain was one type or another of restriction. All groups together might find it possible to agree upon a program of expansion of production through which each group could make greater gains than are possible through restrictive methods.

We cannot remind ourselves too often that as a people we can consume only what we produce. The hope of a higher standard of living for all depends on a steady and sustained increase in the output of goods and services of all kinds. I am convinced that to attain that hope we must answer certain basic questions: Is our national income large enough for all our population? Can we now produce in the United States enough useful and necessary things to supply that third of the people who now lack them with the things they need? What is the most effective use to be made of all our national resources, so that we may produce what we need—and consume what we produce? Only by finding the answer to these questions can we avert the recurrence of the depressions that have plagued us for a century, and which have recently become more drastic and catastrophic in nature, constituting the largest single source of waste of our physical and human resources.

We must come to see and to name the necessary steps that all of us—agriculture, labor, business, investor, consumer, and the government—must take to increase the national income so that our nation may at all times produce all the things needed by all our people—with a fair wage for labor, fair profits for business, fair returns for investors, fair prices to consumers and fair living for farmers.

How can this be done? We need research, more economic knowledge more widely spread, and a new orientation to the problem. The essential steps toward increased productivity might be brought to the attention of the public in several ways: By a book, or a study by a foundation, or by a Congressional inquiry. Another method used in democratic countries to focus attention upon large problems, a way of bringing new facts and ideas into the consciousness of everybody, is the method of national discussion and conference. Perhaps a national conference on productivity, drawing upon the groups representative of agriculture, labor, business, finance, public works, the consumer, and drawing upon all of the educational institutions of the country for the statistics and

analysis basic to this problem, might be made a bench mark for all our future progress.

If each of the groups of our population now concerned with its own problems will for a while give some attention to the basic problem of increased productivity in this nation, I believe that the problems of each will be brought closer to solution. I remember that about thirty years ago a Rural Life Conference was held which marked the starting point for a new attitude toward the whole problem of rural life. A National Conference on Productivity might be equally fruitful. The preparation of material for such a conference, and the discussions carried on during it and afterward, might result in a new understanding of our situation, and help us to move forward to a new economic situation in which the income of the nation would be great enough to supply all the needs of all its people, all the time to the fullest extent that our rich resources make possible.

The group pressures built up by farm, labor and business organizations all have validity. These group pressures arise from division of the present national income. The pressures are as great as they are because the national income is so small that many people do not get enough to live on. If the income is increased so that all people can have enough to live on, these pressures should be lessened.

Discussion of increased production will not hide group conflict or lull any aggrieved group into acceptance of present conditions—it will not settle strikes nor satisfy the tenant farmer's demand for increased and securer income. But such discussions will create a public opinion that will insist upon the solution of wasteful conflicts. Such discussions will make it easier for everybody to see what is a fair settlement, and harder for obstructors to obscure the issues. The new objective does not mean, "Don't fight for your rights." It may well modify, but should not discourage, the effort of every group to secure a satisfactory economic balance.

Assuming that a National Conference on Productivity were to be called, what would be the steps leading toward it? What formulations of facts, opinions and ideas should be presented to it for consideration?

First, I think we would want to know where economic planning and research and decision as to policy is made in this country. It would be useful if we made an inventory of all the bodies of every kind which are doing such research or planning work—chambers of commerce, trade associations, farm bureaus, labor unions, the policy committees of large corporations, industrial research departments and institutions, educational organizations, foundations, and national research bodies. Many such private bodies and agencies are now working on particular segments of planning and research, and in some cases carrying such plans into action.

The survey should also take account of the valuable work in economic

analysis now being done by various Federal agencies—such as the Bureau of Agricultural Economics, the proposed Division of Industrial Economics in the Department of Commerce, certain bureaus in the Department of the Interior, the Bureau of Labor Statistics, the Bureau of Home Economics, the Divisions of Research and Statistics in the Department of the Treasury and under the Federal Reserve Board, the Interstate Commerce Commission, the Federal Trade Commission, the Tariff Commission, etc. Similar work is being done in many States, through state governmental agencies or through coöperative arrangements with state educational institutions.

The initial survey should include enumeration, description and appraisal of such work. It would present a great many of the decisive points in our economic structure—the points at which decisions are made; the connecting lines between points and, in some measure, by simple identification, the influence of one decision or point upon another. It might lead to recommendations for filling gaps, in such research and planning. It might suggest the need for expansion of existing services, or the use of new techniques in research and planning.

Once such a survey is completed, it could easily be kept up to date and would be of permanent usefulness as a current inventory of research and planning instrumentalities throughout the country.

This would be one of several steps that might be taken in preparation for the calling of such a National Conference on Productivity.

Another useful preparatory step would be the establishment of some possible goals for the Conference to consider—some charts or maps, not of the Promised Land, but of the land in which we live, but with this difference from any mapping heretofore done, namely, that feasible paths and trails shall be projected leading to higher ground around our familiar valley.

That is, we want to define in some usable way the present use of our resources, and going on from that, to project the possible or proposed improvements in the use of our resources. We wish to find out how patterns of resource use can be developed which will represent balance in the different phases of our economic activity.

A study of consumption which should be very useful for this purpose is now going forward in the Industrial Section of the National Resources Committee. It in turn is based on two recent Federal Work Project studies on consumer purchases made respectively by the Bureau of Home Economics and the Bureau of Labor Statistics. The technique used there is so pertinent to the kind of work under discussion here that I wish there were room in this present paper to describe it in some detail. Coupled with this study of consumption is a similar one of the essential factors of production. Here input and output rates, decisive conversion factors and the method and quality of flow through specific industries and from industry to industry are charted.

The method of the National Resources Committee studies is designed to represent in simple statistical fashion the whole actual production-consumption pattern of the nation.

In the first place, it provides a way to trace the flow both of income and of natural resources through all their uses and transmutations in the total national economy. The national production-consumption pattern, as it is called, is made up of subordinate parts which cover the expenditure of income, the conversion of natural resources into consumption goods, the creation of income by this process, the conversion of capital into capital goods, and finally the financial flow of all income through our economic system. It may sound elaborate, but it has the advantage of presenting truthfully our actual production-consumption pattern.

The other special value of the technique is this: it can be used to show not only what we buy with the national income we now have, but what we would be able and likely to buy with a given income of any size. We can make trial balances of future possible income, showing how many more pairs of shoes we could have, how much more food, how many more houses or automobiles and so on, and where the income to provide the purchasing power for the consumption of these goods would come from. We can see what wastes can most easily be eliminated, and how better to make use of our natural resources. We can have before us a definite indication of the changes that would have to be made in our present production-consumption pattern to bring it into line with any that we wished to attain. We can have something definite to go on in making up our minds about the desirability of various changes.

That is the whole purpose of such provisional patterns, of such economic maps and charts of our possible changes. We all face the future, we all have to make decisions, and all of us—the government and corporate or other private enterprise—need more knowledge to help us in the drafting of policies. The kind of economic maps which should be most valuable for this purpose would not constitute forecasts of future economic activity. They would be, instead, a series of alternative representations of what might or could occur, or could be made to occur. Such economic maps would help to determine the future by affecting views and wishes, within the limits in which different economic results can be effected by changes of policy.

But there is still another useful preliminary step that might be undertaken in preparation of materials to present to a possible National Conference on Productivity. Supposing it to be thought desirable to make changes of one sort or another in our present production-consumption pattern, what then? Our present restrictive method would probably call for legislative lobbying, backed up by a newspaper propagandist campaign. But the approach to the productive problems here under consideration appears to require instead something quite different—an examination of industrial-financial structure with a view to discovering what

might be called the strategic points at which various influences are and can be brought to bear, with various results in the volume and balance of productivity.

There have been other occasions in our history when intensive consideration of a problem by a great many people who were vitally concerned with it has resulted in concerted action. Back in the 18th century the Encyclopedists of France accumulated socio-political information and crystallized theory in a way that profoundly affected the institutions of France. Somewhat similarly and in lesser degree, the American Committees of Correspondence of the 1770's formulated a program of independent political action that made possible the union of the colonies into a separate nation. By the same process the contributors to *The Federalist* created a public opinion which made possible the general acceptance of a structure of coördinated government that has shown amazing effectiveness through a century and a half of our history. While these three examples may seem to be concerned with political rather than economic matters, I believe they indicate the validity of the method of intensive thought and research, of free discussion, and of the resultant final acceptance of the consensus of that discussion and research, either as an ideal or as an instrument of action.

I have presented here, as preliminaries to a possible national conference on productivity, a program of three preparatory steps—first, the establishment of a running inventory of economic research and planning and policy-making groups, and a friendly appraising study of their activities; second, the development of production-consumption patterns representing not only present actualities, but economic possibilities open to us; third, an examination of the structure of industry to determine the points at which influence is and can be exerted, and the various results of various influences on national productivity and economic balance. It is such a program of research that the Industrial Section of the National Resources Committee is in considerable degree addressing itself. It might then be advisable, as a fourth in this series of preliminary steps, to have all these materials sifted and discussed in a series of conferences of economists, educators and other technical workers who have a special interest in these problems.

Finally, in some manner, whether through a National Conference on Productivity or in some other way, the results of this inquiry should be presented to the nation at large for examination and discussion. Those who represent our industrial, labor, agricultural, financial, consumer, governmental and educational interests, and the public in general, should be asked to consider not only our present production-consumption pattern but various alternative possibilities based upon great productivity and involving better economic balance.

Do we wish to rest content with our present national income of 63 billion dollars and attempt by present restrictive practices to secure a

better working distribution of that income among our population? Or would we prefer a national income of 100 billion dollars or whatever is the maximum that this country could yield, based upon a fuller and less wasteful use of our natural resources, capital and man-power and involving a better distribution of income? That, no doubt, depends upon what changes would have to be made in our economic structure. We may find that large results can be achieved with very little change in our basic structure. Capitalism may continue to function in its familiar manner, private ownership of property remain untouched, and finance retain its present importance. The changes that must be made to secure what we all want may be of a kind upon which there will be a more general agreement than seems possible to those who are accustomed to view the situation from the point of view of our present national income.

This, I think, represents the kind of national economic coördination or planning that is possible in a democratic country like ours, and the kind to which we may look forward. We have no dictators to say to us, "Now you must instantly proceed to mine nickel." We have no central authority to decide that we shall immediately make sugar out of parsnips. And we don't want any such authority in the United States. We don't want that kind of national planning.

We do need, however, clearer knowledge of our economic situation and its possibilities, and clearer ideas as to what we want to do about it and how we would prefer to do it, before we decide whether to make sugar out of parsnips or whether the little nickel that we have is worth mining. The only reason we have in making such decisions is to have enough sugar or enough steel for all the people in the country who need sugar and steel. Planning has no other purpose. Production policies should have no other end.

The Human Wealth of the United States*

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THE people of the United States are distinguished by the wide variety of their cultures. On the surface, they appear similar because they share many things in common. They have the same national news given them by the same national publications. They use the same mass production goods, sold them by national advertising which covers the country with common slogans. They are held together by a common language, by a common belief in democracy, and by a common hope for progress. But, deep down, they differ in their cultural traditions. They have different interests, different forms of hospitality. They give different expressions to their lives in their work, their art, their social and economic ideals.

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In its biological aspects, the human wealth of the United States is more varied than that of any other geographically united country. Every race is here in varying proportions. Nor can we constitute ourselves judges of racial values. Most of the immigrants to this country come under conditions which called for unusual energy, initiative, and qualities of character. Each race has its superior stocks, as well as those which are inferior. Scientists tell us that the blending of races produces widely variant individuals, and so we may be justified in hoping that out of the American melting-pot may come more than the usual proportion of great leaders and men of genius.

Thus our country is marvelously favored in its human wealth. Each separate State can boast of special qualities in its people which are a proper ground for pride. There may be problems connected with so many cultural traditions and so many racial origins living together side by side, but their very variety gives hope for a rich flowering which would be impossible among a people less diverse in their qualities.

It is with our human wealth that planning is ultimately concerned. We strive to conserve the natural resources of our continent and to provide for their maximum and balanced use, so that out of our great natural resources we may increasingly provide conditions favorable to the life of future generations.

But the preservation and proper use of natural wealth will not of itself preserve our wealth of human resources. Human resources survive only as they renew themselves in each generation. The process of renewal is no longer automatic. The majority of our people have left the farm, where children have an economic value. Most people now live in cities, where the rearing of children is difficult and expensive. Coincident with this change, there has been a change in moral and religious sanctions, so that the idea that it is right and desirable to limit the size of one's family is generally accepted and is spreading rapidly over the whole country. Having a family, and especially having a large family, has become an expression of faith in the essential value of life. Only a strong faith that life is good will cause people to undertake the heavy responsibilities which alone assure the renewal of life in the next generation. It is no longer enough to assure the supply of food, to provide pure water, and to prevent the spread of disease. Under present conditions, city people do not replace their kind. In an urbanized civilization, we can conserve our human wealth only by providing such conditions of life throughout the country that our various cultures and our various biological stocks will voluntarily replace their own number in the next generation. At present, some groups are dying out, some are increasing. The isolated farmer in the South is reproducing at a rate 160 per cent of that required for his replacement. The people in some of our northern cities are having not much more than half the number of children for their replacement in the next generation. In every State, in every locality, some groups are in-

creasing and some are dying out, without apparent relation to the quality of the persons concerned in the process. In the cities there is some evidence that the more intelligent people in every class of society have fewer children than do their less intelligent neighbors.

These wide differentials have accompanied a general decline in births which is rapidly assuming serious proportions. The major cause for the decline is probably to be found in the change from family farming, where children were an asset at an early age, to industrial work for wages which take no account of the cost of rearing children. We may expect that before long the economic handicaps which now attach to rearing children will be modified by some form of payments for children such as the family wage scale, or other methods now employed in Europe. These changes may check the decline in births, but we have no reason to believe they will result in an equal birth rate through the population. People will still choose whether they desire to reproduce their kind. To a large extent their environment will determine their choice. Some will be satisfied with poor conditions for themselves and their children, others will limit the number of their children until they can see better conditions in sight for them. Parents will be influenced, too, by the relative difficulty of rearing children under different conditions. Those parents who care most about the future of their children will hesitate to have children if they have to be reared in improper houses, in districts lacking play facilities, without opportunity for normal country recreation, or where schooling is inadequate or distant.

The kind of people we will have in the next generation and the generation after that will depend to a very important extent upon the effect of the environment on the size of family of different kinds of persons.

The conservation of the Human Wealth of the United States, in its variety of cultures, in its richness of superior biological stocks, depends on our ability to provide an optimum environment for the rearing of children, so that the best representatives of every type of culture will tend to have larger families than those they have at present.

Can we remake our cities so that they will be places in which responsible parents will desire to have children and will be enabled to rear them properly? Can we remake the life of our marginal farms, so that superior stocks will stay on the farm, where the birth rate is normally high, or will our farms be subject to selective migration, the better stocks moving to the low birth rate areas of the cities, and the poorer stocks remaining behind to replenish the next generation? Can we provide a more equal opportunity for taking part in productive activity, so as to prevent the hopelessness, the constant ill-directed migration which is so destructive to family life?

These questions are fundamental. In the past ten years, students of population have been conducting studies on the trend of births and deaths in this country, using basic material, subject to statistical analy-

sis far more exact than that available in other branches of the social sciences. The conclusions to be drawn from these studies are non-controversial. They point relentlessly to the fact that the present distribution of births is a barrier to educational and social improvement. That under present conditions of life in this country no group of our urban people whose children go through high school are having enough children to replace their own number. And that undirected individual effort, no matter how well intentioned, has not been able to prevent conditions under which the more responsible parents feel it necessary to restrict the size of their families far below the replacement level.

The National Resources Committee has recognized the fundamental nature of Population Problems as they affect national planning by appointing a committee on population problems. But to many of those engaged in planning, the study of population signifies only the desire to estimate future growth and size of towns and cities.

Within the United States, internal migration plays the preponderant part in determining the size of any particular community. For a long time past infertile cities have been growing in size, and the highly fertile farm population has been decreasing due to migration from the farm to the city. How long this process of migration will continue, and to how great an extent, depends on economic and social factors. Estimates of population grow thin local areas are estimates of migration, only slightly modified by our more exact information on natural increase. Students of population can trace the migratory movements of the past, and those which are going on at present, but they can hardly be counted on to forecast the social and economic changes which will guide the internal migration of the future and determine the size of local communities.

Figures for the nation as a whole can be derived from a study of the actual birth rates of women at different ages, and the actual mortality rates at different ages. There is a considerable lag before these rates find expression so that estimates for the country as a whole, which do not extend beyond a generation, are likely to be fairly accurate, apart from the element of immigration, on which there is at present a restrictive policy. Short term predictions can therefore be made for the whole country with considerable accuracy. The growth of our population is slowing down. Probably by 1970 it will have reached the maximum of approximately 150 million people if there is no heavy increase in migration. Thereafter, if present trends in the birth rate continue, we may expect a considerable decline. By 1980, the age composition of the population will have shown a remarkable change. Only 27 per cent of the total will be young people under 20, as compared to 39 per cent in 1930; and the percentage of people 65 and over will have risen from 5.4 per cent in 1930 to over 12 per cent in 1980. We will have only two-thirds as many children in our schools, but at least twice as many old people.

The estimate of our future national population gives the framework

on which to plan a regional distribution of population appropriate to the productive resources of various parts of the country. We will have taken an important step towards obtaining a better balance of births if our people can be located in such a way that each group has a more nearly equal opportunity to do productive work. If we can more nearly equalize economic opportunity, we will at the same time be equalizing many other aspects of life which affect the rearing of children. Nutrition, education, housing, are all dependent on the economic resources of the community. They cannot be provided in any adequate amount unless the community as a whole is engaged in productive occupations.

National planning for the best location of our people with relation to productive resources is fundamental to the development of sound population policies. The work of an enlarged Federal Employment Agency would seem essential to the carrying out of such a task.

Closely related to the need for relocating many of our people, is the need for defining the use to which different areas may be put. This need extends to great areas of marginal land, as well as the counties, towns, and even the small residential or business areas of a village. Blighted areas mean not only blighted people, but also that parents in such areas will have more than the average number of children. These children will in turn not receive their fair share of health and training. To prevent the recurrence of such areas by rational methods of zoning is a second step in any sound population policy.

These two fundamental aspects of planning, the relocation of the population in relation to productive resources, and the delimitation of areas for the particular use to which they are best adapted, represent attempts to lay foundations on which to build a more stable distribution of births. Progress along these lines will cut down on those uneconomic forms of internal migration which are injurious to marriage and family, and should help create more stable economic conditions, capable of supporting the community's efforts to provide proper surroundings for its children.

Other aspects of planning bear an immediate relation to the environment in which children will be brought up. We have already noted that the environmental conditions which affect family life may play an important part in determining what type of parents have the most children. The proper development of suburban communities, the extension of recreation facilities, the provision of adequate housing, are functions of planning which cannot be left to undirected private initiative. They must be provided in a form which will meet the needs of family life and of a reasonable number of large families. Only then may we expect the more responsible parents to make a proportionate contribution to the next generation.

Suburban communities should be planned on a scale which permits the best relationship in size and location between the school, the homes, and the recreational facilities provided for young people.

Recreation facilities are exceedingly important to family life. Children, now that they are in the cities, are no longer occupied with family chores. The proper development of their character and physique demands recreational activities. Parents whose children are safely occupied in non-commercial and presumably valuable forms of recreation, find less difficulty in bringing up their children. Even the economic handicaps attaching to a large family are diminished by the provision of adequate recreational facilities. Recreation has thus an important part to play in raising the birth rate in urban communities. In rural districts, there seems to be a serious gap in the recreational activities offered young people between the ages of 15 and 25. Yet it is at this time in their lives that decisions will be made as to migration. Rural recreation should be developed so that it will play its part in preventing the migration of the better stocks away from the farm. Urban recreation should prepare young people, by building character and physique, for the effort required to rear families of their own.

Housing is an aspect of planning which is usually considered from the sole point of view of providing decent homes for the existing population. Little thought is given to the type of buildings which would be required to house a self-replacing people. It is assumed that the average urban family will consist of parents with one or two children. Actually, an average of three children is required if a group is going to replace itself from one generation to another. This average of three children will not be evenly distributed. Some couples will have no children, some will have only one or two. To make up for those below the average, there will have to be a number of large families. Few groups will be self-replacing, unless twenty per cent of the couples in the group have families of five children or more. The necessity of providing homes adequate for so many large families may seem to add an impossible burden to a housing problem which is already overwhelmingly difficult.

Our present vast stock of human wealth is not a fixed and imperishable asset. Its values may be depleted in a few generations. Yet, under conditions proper to its renewal, it may constantly improve in quality, enabling us to reach a higher form of civilization than any we have known before. The need for providing conditions under which the best of our cultures and the best of our stocks will replace themselves from generation to generation is a need which is fundamental to all planning for the future. No other group can see this problem in truly National terms. The planning organizations of the country carry a heavy responsibility for the conservation of our human wealth. The corresponding opportunity for service gives the whole field of planning a dignity it would not enjoy if it were engaged in lesser tasks.

Technological Advance and Transportation Planning*

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The Importance of Transportation: It is not necessary to stress the importance of transportation in a modern world. Transportation is one of the most important industries in the United States quite apart from its influence on our lives and judged merely by the usual large and tiresome figures as to employment, purchasing power, taxes paid, revenues collected and capital invested. The Federal Coördinator of Transportation found over twenty-seven billion dollars invested in railroads, pipe lines and waterway transportation in this country. To this investment you can add about two billion dollars for motor trucks, put your own valuation on twenty-four million passenger automobiles, make an estimate of the sums which have gone into improvements of inland waterways, rivers and harbors since the Federal Government started to aid their development in 1789, figure out what our three million miles of highways are worth and consider the millions of new capital which are being invested in air transportation.

Our Present Transportation Service: This transportation system of ours produces about 350 billion ton-miles of freight service annually. Of this freight service about two-thirds is performed by the railroads and the balance is divided fairly evenly between pipe lines, waterways and highways. We also move about 380 billion passenger miles in a year. The overwhelming bulk of this service is performed by private automobiles—probably not over five or ten per cent is moved by railways, buses and airways combined. If you want to visualize these statistics just picture every man, woman and child in the United States as traveling about 2,500 miles a year, each accompanied by at least a ton of freight.

Freight: It appears unlikely that freight traffic measured by ton-miles will increase materially beyond the standards which prevailed prior to 1930. At least four important reasons point to this conclusion:

First, the older and more settled and stabilized countries get along with a fraction of the freight service we require. Freight service on German and French railroads, in proportion to the population of those countries, is only about a fourth of our standards. Great Britain and Switzerland use relatively even less. With the undoubted trend of our population toward stabilization it seems improbable that our freight service will grow even farther away from European standards.

A *second* factor limiting the growth of freight transportation is merely ordinary common sense stimulated by competition. Industries are being re-located with a view to saving freight costs—take the shift of the textile industry from New England to the South, and of the shoe industry from the East to the Middle West. Elimination of waste of materials will also eliminate a good deal of transportation of such materials.

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A *third* factor, of course, is advanced technology including the use of materials at present wasted but particularly affecting traffic through the production of better materials and the manufacture of better designs. The American Iron and Steel Institute, for instance, calculated that the thirty-four million tons of steel produced in 1935 would last about thirty-two years, which is almost twice as long as the average life of steel produced forty or fifty years ago. Another rather obvious example is the trend toward lighter machinery run at higher speeds.

A *fourth* factor tending to limit freight transportation is the growth of electric transmission lines and natural gas pipe lines. We have over 200,000 miles of transmission lines and about 70,000 miles of natural gas pipe lines, and plainly such utilities do not add anything to the volume of freight transported.

On the whole, our gradual increase of population seems to be the principal favoring factor in the freight situation. Against this may be set off the unfavorable factors mentioned and probably others.

Passenger: Passenger transportation is markedly in contrast to the freight situation. Our average inhabitant traveled about 500 miles in 1920, and four or five times that far in 1936. This increase is particularly striking when economic conditions in recent years are considered. It is plain that passenger traffic is still increasing and, while many authorities see rather definite limitations to freight traffic, practically no one has any ideas on where the ceiling of passenger business is located.

Highway Transportation: Because about 90 per cent of our passenger service is carried by the highways, and because the highways themselves come to our front doors, most of us have a wider knowledge of roads and automobiles than of any other sort of transportation. We have about three million miles of road in the United States. Half a million miles are in the state highway systems: $2\frac{1}{2}$ million miles are designated as "local roads," a phrase which needs no explanation to the ordinary automobile driver. Of the half million miles in the state systems, about two-thirds are primary roads and one-third secondary. Our really high-type surfaced roads make up 163,000 miles out of our total road system of 3,034,000 miles, or about five per cent.

Primary Roads: We have a well-improved system of through roads traversing States, regions and the country as a whole, connecting our principal cities and generally adequate for the traffic.

Main highways are now being designed to allow safe travel at speeds of 60 miles an hour or more. Such speeds require smooth yet skid-resistant surfaces, careful alignment, reasonable grades, and preferably the separation of opposing lanes of travel. Horizontal and vertical curvature is being reduced to permit clear vision of not less than 800 feet ahead, and where this standard cannot be attained markers should be set up giving speed limits. A two-lane pavement, 22 feet wide, can handle 4,500 vehicles daily, and the present plans of the Bureau of Public Roads contemplate increasing the capacity of a two-lane road by building another two-lane pavement on the same right-of-way but separated by a neutral strip. Each of these two-lane roads will then carry traffic in one

direction only. When traffic density exceeds the capacity of a four-lane pavement it is considered advisable to locate a parallel road on a completely new right-of-way.

It will become increasingly desirable to light important highways, both as a means of speeding up operation and in the interests of safety. It costs only about \$2500 a mile to install an adequate lighting system, but annual operating expenses estimated at from \$600 to \$1000 a mile far exceed all other maintenance charges and will probably make the adoption of highway lighting a rather gradual process.

Access to high-speed roads will, of course, have to be regulated far more than it is today. Abutting property owners cannot be allowed to enter the right-of-way wherever they choose, nor to utilize their frontage indiscriminately for roadside markets and curio stands.

Secondary Roads: Probably, we are facing a much larger development of secondary highways than of our primary road system. Secondary highways have been somewhat neglected in the past on account of the obvious necessity of developing through routes. While we have been building up our high-speed through systems of roads, an immense amount of experimentation and research has been devoted to secondary road problems such as reactions of sub-grades to moisture, temperature changes and wheel loads, the development of better drainage methods, the study of road-surfacing materials, and the perfection of road-building and road-working machinery. As a result we can now build bituminous macadam roads at about two-thirds of the cost of concrete roads and capable of carrying 2000 or 2500 vehicles a day without injury. Similarly great improvements are being made in the types of treated and untreated macadam, gravel and road bituminous mixtures, all resulting in remarkably cheaper and better roads entirely adequate for modest traffic densities.

Local Roads: A great problem for local authorities still remains in the fact that two-thirds of all the roads in the United States are unsurfaced and in these two million miles of unsurfaced roads are probably a good many thousand miles of roads which either should not have been built or should now be abandoned. Whatever were the merits of the old checker-board system of "section roads," it will undoubtedly in many cases be far cheaper to move farmhouses down to good roads rather than attempt to maintain the alleged roads now theoretically serving them.

Passenger Cars: As to passenger automobiles, we may look for cars of about the same size and speeds as we have today. Weights will undoubtedly be less. The kind of fuel will depend on the supply of oil in this country and we shall have constant minor improvements in mechanical and electrical features, better materials and greater comfort.

Trucks: The principal problems in highway transportation so far as the vehicles are concerned arise from motor trucks and passenger trailers. We have about 3½ million motor trucks in this country with an average

capacity of about $1\frac{3}{4}$ ton per truck and a total capacity of about six million tons. These six million tons compare with about 106 million tons railroad freight car capacity in the United States.

During the depression, when the falling off in railroad shipments of heavy bulk materials and durable goods generally was so pronounced, the competition of trucks which specialized in handling consumer goods rather than capital goods, acquired undue prominence. With the return of more normal business conditions it is now possible to get a better perspective on the influence of trucks but, of course, this influence is not to be minimized. About half the livestock in seventeen leading markets was handled by trucks, 98 per cent of the milk moving to nineteen of our principal cities, 56 per cent of the eggs coming into Chicago, large quantities of fruits, vegetables, furniture, automobile tires, short-haul coal, bakery goods, automobiles themselves and merchandise in general are all big items of truck traffic. Truck operators to a large extent are selective as to commodities they handle, they do their best to skim the cream and to hunt for revenue rather than tonnage. They can give a direct, speedy, personalized service in many instances which it would be rather out of the question for the average railroad to handle.

Truck operators will encounter, however, public outcry against highway congestion with its attendant delays and accidents to private vehicles, increasing demands for financial responsibility, higher labor costs, higher taxes, limitation of hours of service and definite restrictions as to sizes, axle loadings, etc. It seems probable that trucks will achieve a virtual monopoly of short-haul business where unusual sizes and weights are not involved. How far highway transport may go beyond the short-haul zone will be considered a little later in connection with railroads.

Trailers: As to passenger trailers, of which about 50,000 were built in 1936, the two main problems seem to be safety and sanitation, the latter including not only the inhabitants of the trailers but the possibilities of transporting insect pests, plant diseases and the like. Prompt planning and early action on these decidedly important points are highly desirable. The trailer is a rapidly developing industry whether it comes under the head of housing or transport. The commercial use of trailers to display merchandise and to sell goods and services in rural districts and small towns presents large possibilities.

Waterborne Transportation: The settlement and development of the United States before 1840 depended largely on waterways. Before the Revolution the Ohio and Mississippi rivers were carrying an important trade with the Eastern seaboard through New Orleans. Canal transportation, which reached its highest point of development in the fifties with about 4500 miles of routes, later supplemented coastwise, lake, and river traffic. The Federal Government began to aid in river and harbor improvement as early as 1789, and the first River and Harbor Bill was passed in 1823, well over a hundred years ago.

Under the direction of United States Board of Engineers for Rivers and Harbors, we have a well-developed waterways system. Its principal divisions are the Mississippi River System, which, of course, includes the Missouri and the Ohio, and the tributaries of the latter; the Great Lakes System; and the Panama Canal. We also have an intracoastal waterways system reaching from Cape Cod to Miami and from Apalachicola, Florida to Corpus Christi in Texas. These various systems have been improved or are in the course of improvement over stretches and to depths commensurate with their commercial importance and with other benefits to be derived from them, notably flood control, irrigation, stabilization of water-levels in navigable channels, and so on.

Ninety per cent of the traffic of the Mississippi River System is made up of bulk commodities, while the Great Lakes traffic is mostly down-bound grain, and a balanced traffic made of iron ore downbound and coal upbound.

The Panama Canal carries a much more diversified business—oil, sugar, lumber, copper, canned goods, cotton, phosphates, sulphur, and general merchandise, but even here the largest single item is crude petroleum handled in tank steamers. The Panama Canal has been responsible for marked reductions in water rates between the East and West coasts of the United States, diverting a lot of business from the trans-continental railroads and acting generally to the advantage of seaboard communities and to the detriment of the Middle West. This, in turn, has naturally reduced the volume of business available for our inland waterways system.

Van Loon contends that in thousands of years of shipbuilding the only vital changes have been from man-power to sails and from sails to machinery. This is perhaps an extreme view, but undoubtedly so old a form of transportation as shipping can hardly look forward to as rapid developments and as great changes as automobiles or airplanes face. Nor are we likely to have immediate and radical changes in a form of transport so largely devoted to handling bulk commodities, with such marvelous efficiency as we see on the Great Lakes.

The use of the Diesel engine on inland waterways and small coastwise vessels is progressing. The tunnel type propeller boat is supplanting the old type stern wheel Mississippi steamer. A good deal of attention is being given to the development of inland waterway propeller craft suitable for low-bridge clearances.

On the large coastwise boats and in overseas trade both Diesel engines and high-pressure steam turbines are becoming increasingly important. The Director of the United States Shipping Board Bureau says that the principal advance in the design of ships in recent years has been in fuel economy, but, of course, specially designed propellers and rudders, streamlined afterhulls, also welded construction eliminating skin friction, are other important developments.

We cannot yet be sure whether marine power plants will generally be Diesel or steam. The former has a higher thermal efficiency and the latter a lower initial cost together with some savings in weight, simplicity, and the price of boiler fuel.

Our waterways system has generally had the benefit of studying and planning on the part of highly trained and competent engineers. You may recall that Robert E. Lee first attracted public attention and made his earliest reputation in the Army through his exceptionally able work in river improvement at St. Louis. The magnificent performance of the Mississippi River Flood Control System in January of this year shows that General Markham and his aides are carrying on a great tradition.

Railway Transportation: First among changes in railway transportation come developments in *motive power*, which will probably be used—electric, Diesel and steam. An electrified railroad, such as the Pennsylvania from New York to Washington, closely approaches the theoretical ideal of transportation. Rapid acceleration, smooth operation at high speeds, cleanliness, ability to handle anything from a single unit passenger car to a 1,500-ton passenger train or a 7,500-ton freight train, smoke elimination, and efficient operation of terminals are all in the day's work for such a property.

Electrification, however, is really the result of necessity rather than desire, and this necessity arises when the physical limitations of terminals in great cities reach the point where nothing but electricity will permit economical operation and in some cases even permit operation at all. Electrification involves a tremendous additional investment, probably creating little additional traffic. While it is true that an electrified road can save about half of its former fuel bill and effect other less impressive economies, a great volume of business will be needed to produce enough savings to justify the increased capital charges. Exceptional operating conditions as on steep mountain grades where regenerative braking is possible may also occasionally justify electrification. Probably, however, railroad electrification for a good many years to come will be confined to areas of unusually heavy traffic. The Diesel engine probably has its greatest future in terminal service, particularly when electric transmissions cost less or if some hydraulic or mechanical devices are developed to transmit the Diesel's power to its wheels. The fuel-saving such an engine makes would be incredible to one not realizing that the average switch engine spends most of its time doing nothing but burning coal, while a Diesel can be shut off almost as readily as an automobile engine. Public demands for smoke elimination can be satisfied by Diesel operation. Cold weather, which cuts about a third off the power of steam locomotives, does not affect Diesels. A Diesel switch engine has higher starting power and better acceleration than a corresponding steam engine; it does not have to haul a heavy tender wherever it goes; it can operate for 48 hours continuously without taking fuel or water.

The light-weight, high-speed Diesel engines installed on our long-distance non-stop trains are also a promising development. The initial cost of such a locomotive is a good deal higher than that of a reciprocating steam engine, but in a service where sustained high speeds are possible, a Diesel has the advantage of carrying its fuel and water, using little of either, and being able to run above 80 miles per hour with relatively small damage to the track.

Some competition for this form of fast-passenger power may arise through the use of steam turbine locomotives, one of which is now being built for the Union Pacific. On the high-speed Diesel and on the turbine locomotives maintenance costs are problematical, and the all-important factor of reliability is yet to be established. It is noteworthy, however, that both these forms of power are unusually reliable in stationary service.

On the whole, the reciprocating steam locomotive will likely prove adequate to all freight demands of the railroads in the next 20 years and to a large portion of passenger service demands. Considering the years of research and practical experience back of steam engineering, continuing improvements in this type of locomotive are being made and are to be expected.

With two million *freight cars* in service, changes can only be made slowly. Something can yet be done in reducing weight through improved designs and lighter materials. The savings of this, however, will be largely confined to the item of fuel, and fuel costs are now on such a low unit basis that any car with a high first cost will have difficulty in justifying itself. In *passenger cars*, however, a reduction of weight is an effective means to decrease train resistance and increase speed. It is important where fast schedules are required with frequent stops or where moderate speeds over relatively heavy grades are necessary. The importance of streamlining is less than is popularly supposed, but after speeds above 60 miles an hour are reached, streamlining becomes increasingly beneficial.

A conventional Pullman car weighs about 70 or 80 tons and the average steel passenger car almost as much. The railroads today, however, are building coaches of fairly conventional types, weighing about 50 tons, while the streamlined cars on the Burlington "Zephyrs" weigh only 25 or 30 tons—about a third of the standard Pullman weights.

One great benefit of light passenger equipment which may be cheaply operated is the resultant ability of a railroad to give frequent service. If you have three or four trains a day to choose between, you are less apt to seek other forms of transportation than if you have your pick between a train at 3 o'clock in the morning and another at 3 in the afternoon.

Attempts are now being made to coördinate *rail and truck service*. The idea is for the trucks to handle terminal operations, but for the line haul between one city and another to be handled by railroads, keeping trucks

off our intercity highways and turning over to the railroads the strictly haulage or line service as contrasted with the assembly and delivery or terminal services. We have freight containers, not yet popular in the Middle West, but making a good deal of progress in New York and Pennsylvania. These, of course, are loaded by shippers, hauled to railroad freight stations, placed on flat cars, and further shifted at transfer stations if necessary to provide for solid carloads of containers to particular destinations, where, in turn, the containers are unloaded and trucked to the ultimate receivers. Or coördination may take the form of assembling freight by trucks, transporting the truck bodies themselves by rail from one city to another, and trucking to the consignees.

Here is a real problem for the Interstate Commerce Commission and other regulatory bodies. If the truck haul is lengthened beyond terminal zones, it is plain that a railroad may thus invade the territory of its competitors and intensify a competition which has already in many cases been carried to unsound lengths. From a strictly economic standpoint, too, it is a question at just what distances line haul traffic can be more cheaply handled by railroads than by trucks once the latter are loaded for particular destinations. Here plainly is a field where a good deal of thought is needed, not so much to protect the public from abuses as to keep the trucks and the railroads from cutting each other's throats. Government regulation in the past has probably saved some roads from attempted suicide, and this particular sort of history may quite easily repeat itself among the trucks.

Pipe Lines: Of all present forms of freight transportation the pipe line, within its limits, is the least conspicuous, the most efficient and the most successful economically. Eighty per cent of our crude oil is produced in California, Oklahoma and Texas, while East of the Mississippi River, where seventy per cent of our population lives and consumes corresponding amounts of gasoline, only five per cent of our oil is found. The solution of this has been forcing oil through eight- or ten-inch diameter lines of pipe, and this has been done with such efficiency that even waterways offer small competition except on such long hauls as from Texas Gulf ports to New York or Philadelphia. Except for the transportation of gasoline, our 115,000 miles of pipe line confine their operations to crude oil, nor does it seem probable that they will handle other commodities in any great quantities within the next fifteen or twenty years.

While they nominally have a common-carrier status, pipe lines are really plant facilities of the oil companies. They do not deal with the general public. The benefits of this kind of transportation accrue direct to the oil producers and refiners, and only indirectly to the common man. This, therefore, appears to be one field of transportation where neither Governmental planning nor regulation is of much importance under existing conditions.

Air Transportation: The airways at present handle only a fraction of

one per cent of the total passenger service in the United States and probably not over three or four per cent of the passenger service handled by common carriers.

While it is true that transport plane passenger service almost doubled between 1933 and 1935, and will probably double again before 1940, popular interest in aviation is entirely out of proportion to the volume of air traffic. The average journey by plane today is already in excess of 400 miles, which is far beyond the average passenger journey in the United States. Furthermore, as automobile, bus, and passenger train speeds increase, the amount of time that can possibly be saved by taking a plane becomes less important. The location of the average airport has something to do with this, and where air terminals can be relocated closer to large cities air transport will profit correspondingly, but aviation is not adapted to short-haul business.

Planes in regular service are now flying coast to coast with only three stops; and with cruising speeds around 200 miles an hour and a constant trend to fly at higher levels, the airlines are plainly devoting their major efforts to the long-distance, high-speed luxury field of passenger transportation in which their advantages are pronounced. Unlike railroads which have to own and maintain their lines and terminals, the airlines depend to a large degree on Federal aids to navigation and, of course, on the aid of cities for terminals. About half the airports in the United States are municipally owned. Over 22,000 miles of our airways are lighted by the Department of Commerce, and this Department also operates about 200 radio broadcast stations or radio range beacon stations.

Looking to the future it seems that technical development of the planes themselves is slowing down; streamlining is pretty well worked out; comfort has reached the stage where it is second only to speed as an attraction; and the ships are tending to standardize particularly as to sizes. In the words of one of the leading aircraft manufacturers:

Efforts will always be made to increase speed consistent with other factors, but the trend of the moment seems more toward safety and comfort than to the greatly increased speeds. Present speeds permit of quite fast schedules and in my opinion the only pressing need in speed now is to give the airlines the larger margin to maintain their present schedules rather than to allow them to better their present schedules.

One technical development immediately ahead of us, however, is the construction of a limited number of planes to fly at altitudes above 20,000 feet. At this height cruising speeds of 240 miles an hour may be attained without proportionate increases in operating costs—roughly every 1,000 feet in elevation permits one per cent increase in speed. At such levels, also, air conditions for smooth flying are generally advantageous.

The difficulty in constructing such planes arises from the necessity of designing a cabin in which the air may be held at a pressure which will

not unpleasantly affect the passengers. At 20,000 feet, air pressures are only half of what they are at sea-level and while this variation may be experienced by mountain climbers or the pilots of army and navy planes aided by oxygen tanks, many of us experience discomfort around 10,000 feet. A difference between interior and exterior pressures of only three pounds per square inch, which is the difference between pressures at 10,000 and 20,000 feet, would mean half a ton total pressure on an 18-inch window. Translate such figures into the terms of a cabin 100 feet long. Such sub-stratosphere planes can probably be used to advantage on only a limited number of long-distance non-stop flights. The limiting factors are traffic density and the time and distance it will take such planes to climb to high levels and descend from them.

Probably the greatest single deterrent to air travel is the question of safety. The planes themselves experience few mechanical failures and, barring extremely unusual ice conditions, are virtually independent of weather hazards once they get off the ground. The difficulties lie in the terminals themselves, in weather conditions at the terminals, and above all in navigation.

Improvement in the location, design and lighting of the airports themselves is progressing rapidly and will be one of the most important things making for increased safety. We cannot do anything about the weather at the terminals, but we are more quickly and accurately forecasting what that weather will be. The increasing speed of the planes gives less margin for error, and larger supplies of gasoline aboard planes have already contributed greatly to the safety of operation by permitting a far wider choice of airports under adverse weather conditions.

Navigation is being constantly improved through wider and more intensive weather studies, through more and better aids, particularly in the field of radio communications, radio compasses, radio direction finders, and, of course, radio markers and beacons. As planes are constantly tending to fly at higher levels and to avoid bad weather rather than bore through it, the pilot is increasingly becoming the counterpart of a ship's navigator rather than a locomotive engineer.

Commercial air transportation, although limited by time and space in its field and primarily adapted to much longer distance than average passenger journey, is still capable of large expansion. Undoubtedly larger volumes of mail and far larger volumes of air express traffic will be carried, and in all probability lower airplane fares (say about on the levels of extra-fare Pullman trains) will become available.

The problems of planning for airway transport are not unlike those involved in highway transport and in railroading.

Urban Transportation: While city transportation of passengers is scarcely a subject for National Planning, it is true that nationally used transportation agencies, such as railroads and motor vehicles of all kinds, enter into the urban situation.

The way traffic is handled in various cities is also an obvious factor in intercity transport. For example, a passenger flying from Chicago to St. Louis will spend quite as much time dragging along through city streets in these two terminals as it takes the plane to cover the entire distance between the two cities. Such terminal delays may throw travel from airlines to the railroads, or, using Mr. Dooley's famous formula for ocean journeys, "Compute the elapsed time from boarding house to boarding house," the traveler may even decide to drive his car.

In any study of urban transportation, however, whether it be approached from a national, a state, or a purely local angle, the one most important factor is the use of a city's downtown streets. If these streets exist principally as storage facilities for parked automobiles, neither bus nor street car can supply truly rapid and convenient transportation.

Some General Conclusions: Two quite modern and rapidly developing influences in transportation should be noted.

First is the vastly improved quality of freight and passenger service both as to speed and as to reliability. The effects on inventories, investment of capital in storage facilities, and the accumulated processes of converting raw material into finished goods are obvious.

The *second* great development in transportation in recent years has been the increasing ability of the individual to supply his own freight and passenger service. In passenger transportation the common carrier is statistically nowhere as compared with the private automobile. In freight traffic the pipe lines are owned and operated by the oil companies, as are great numbers of tank steamers. Eighty-five per cent of the motor trucks are privately owned and operated and the total volume of freight which they handle is plainly increasing more rapidly than the business handled by common carriers such as the railroads.

This growth of privately owned freight and passenger agencies will be chiefly important for its influence on rates and this will be profound.

As to coördination of transportation agencies, the average man will not be inclined to quarrel with the statement that each form of transportation has its peculiar advantages and that all should be used in a way to permit the greatest utility for each. Moreover, transportation must constantly adjust itself to the shifts in agriculture, industry, trends of population and hundreds of other factors which go to make up our modern civilization. These difficulties and the magnitude of these problems do not preclude the possibility of effective study and regulation.

While it is not within the scope of this paper to suggest Governmental policies, two points at least seem clear.

First. Whatever regulation we have should be uniform. If we fix rates for one transportation agency, its competitors should not be turned loose on their own individual war path.

Second. It seems inevitable that some measure of regulation must apply to private as well as to public carriers.

NATIONAL PARKS

The National Park Service, 1917-1937

HORACE M. ALBRIGHT, President American Planning and Civic Association

THIS is the twentieth anniversary of the establishment of the National Park Service as a bureau of the United States Department of the Interior. While the organic act authorizing the Service was approved by President Woodrow Wilson on August 25, 1916, no funds were made available for salaries, equipment and supplies. The first appropriation for the new bureau was made in the Deficiency Act of April 17, 1917. War had already been declared and there was no reason to expect funds for more than minimum requirements.

On May 9, 1917, the writer took the oath of office as Assistant Director and automatically became Acting Director in the absence of Hon. Stephen T. Mather, the Assistant to the Secretary of the Interior, who had been chosen as Director. Mr. Mather accepted his appointment on May 16, 1917, and, after recovering from a serious illness, early the following year assumed his office in Washington.

For many years, the national parks had been governed by the Secretary of the Interior, nominally through the Chief Clerk of the Department, but actually by Assistant Attorney W. B. Acker, a very efficient officer with a long record of public service. Mr. Acker and some of the clerks and accountants of the Chief Clerk's office devoted part of their time to national park affairs.

The parks themselves were administered by local superintendents. Four national parks—Yellowstone, Yosemite, Sequoia and General Grant—had been protected for years by cavalry detailed by the Secretary of War at the request of the Secretary of the Interior. Troops had only been removed from the latter three parks in 1914. They were to remain in Yellowstone until 1918. In most of the national parks not protected by the Army, superintendents were political appointees. There being no central administration equipped to make and enforce policy, each park was handled as a separate and distinct responsibility.

In 1832, the Hot Springs of Arkansas had been reserved and had been regarded as a national park since 1877, but it was not so designated by law until 1921. Yellowstone National Park had been established March 1, 1872, as a result of exploration by Montana citizens and the Hayden Survey, and in full acceptance of the famous camp-fire suggestion of Judge Cornelius Hedges who first gave expression to the idea of conservation of that wonderland as a park, in lieu of exploitation by private enterprise. It was the first national park to be created in the world, and it was our country's first important move in the conservation of scenery, forests, wildlife and other natural phenomena. By May,

1917, there were seventeen, including several areas for which no appropriations had been made.

In 1893, Gettysburg National Military Park was authorized, although not established until after the acquisition of part of Chickamauga Battlefield as an historic park. Thus began a battlefield park system under the War Department. In 1906, the Lacey Antiquities Act had authorized the President to issue proclamations setting up national monuments embracing areas containing scientific and historic features and historic landmarks of national interest and importance. These monuments were to be administered by the Department having previous supervision of the land covered by the withdrawal order. Thus monuments came to be under the control of three departments—Interior, Agriculture and War. In 1917, the National Park Service assumed jurisdiction of twenty-two national monuments, while eleven were supervised by the Forest Service of the Department of Agriculture and two by the War Department.

After the Civil War, another park service had been organized in Washington, D. C., to manage parks, parkways, memorials and public buildings in the District of Columbia. At first, it was directed by the Secretary of the Interior, but later was reorganized as an independent office in charge of an Army officer.

Therefore, in 1917, when the National Park Service was set up as a bureau of the Interior Department, it took over only the areas under the general jurisdiction of the Secretary of the Interior. The Secretary of War with a small staff of Army officers directed the military parks, usually through local commissions of three Civil War veterans appointed by the President. There were monuments administered by the Departments of War and Agriculture, and there was the Office of Public Buildings and Parks of the District of Columbia in charge of an Army officer.

Mr. Mather, a college friend of Secretary Franklin K. Lane at the University of California, had come to Washington in January, 1915, as Assistant to the Secretary to put his knowledge of the national parks and his business experience at the disposal of the Secretary for a short period of time. The writer was assigned as his assistant. Secretary Lane, Mr. Mather and I were all conservationists of the Theodore Roosevelt school. Our job was to get the National Park Service established and organized. This objective attained, Mr. Mather and I expected to retire to private life. Outside the Government Service, our chief ally was the American Civic Association, headed by Dr. J. Horace McFarland, which had been promoting legislation since 1908 to provide for a national park bureau.

Secretary Lane, after installing Mr. Mather as Assistant to the Secretary, retired to his own adjoining office, then suddenly reopened the door and said, "Oh, Steve, I forgot to ask your politics." This was his dramatic expression of a determination not to have any politics in

the National Park Service if and when established. When the organic act creating the Service was passed, no positions were made available for appointment by political preferment; all were to be within the classified Civil Service. To this day, there has been no politics in the appointment of personnel of the National Park Service in Washington.

So meager were funds for the infant Service in 1917 that only a few employees could be engaged. The United States Geological Survey, headed by Dr. George Otis Smith, was taken as the ideal non-partisan bureau which the National Park Service should follow as a pattern for its organization. Of course, the design had to be scaled down to fit the small piece of financial cloth from which the new bureau had to be cut. Not only was the Geological Survey the pattern of the new bureau for organization, but its strong conservation policies, its high ideals of public service, and the morale of its personnel influenced every move in making this new bureau that we hoped would soon command the respect that was widely accorded the Survey. Moreover, Director Smith approved our request for permanent transfer of several exceptionally able members of the Survey to the new Service. Among these recruits were Arthur E. Demaray, now Associate Director, Isabelle F. Story, now Editor-in-Chief, and the late W. B. Lewis, first Superintendent of Yosemite National Park and later Assistant Director of the Service. Other employees were temporarily detailed to the Service while the Survey continued to pay their salaries. Robert Sterling Yard, whom Mr. Mather had brought from New York to edit the park publications, and a few other employees were continued on the Director's private payroll until an Act of Congress in 1918 prohibited payment of Government employees by private funds.

Obviously, it was an interesting array of Government workers who in June, 1917, moved into the new Interior Department Building (now the old or North Interior Building) and occupied quarters assigned to the National Park Service—a total of about a dozen rooms in the southern third of the fourth floor of the East Wing.

From the beginning, this little group performed their manifold duties with perfect coordination of effort and superb enthusiasm. Had this not happened, I do not see how anything could have been accomplished, for funds were very scarce and the War so occupied Department officials and Congress that no attention whatever could be given to the tiny bureau concerned only with national park protection, since the parks had no direct contribution to the great sacrifice to save Democracy.

Troubles came thick and fast. The most serious problems arose from the excitement of the War and the greedy ambitions of profiteers. Sheep and cattle men sought to graze their herds in the great parks of the West, and for a while there was insistent demand to kill the elk of the Yellowstone country for meat for the soldiers!!

I recall that one morning soon after we entered the War, Secretary

Lane showed me a telegram from the President of the University of California, his and Mr. Mather's and my Alma Mater. President Benjamin Ide Wheeler, as head of the California Council of National Defense, demanded permission to send 50,000 head of sheep into Yosemite National Park. It required strenuous efforts to build a counter offensive against my college president through California friends of the Parks, mainly in the Sierra Club.

In the State of Washington, only the dramatic demand of the Mountaineers of Tacoma and Seattle that their lawns and golf courses be grazed before sacrificing the wild flower gardens of Mt. Rainier saved these virgin meadows and slopes of the Park.

The War years were devoted largely to fighting attempts to exploit the parks, developing policies of protection and administration, and reorganizing the field personnel, the latter a most difficult task because desirable men were overseas or on military duty here. In 1918, we expected our little appropriations to be all but wiped out, but Hon. Swagar Sherley, of Kentucky, Chairman of the Appropriations Committee, who had been in several parks in 1915, gave us almost as much money as we requested for the next fiscal year.

After the Armistice, discharged soldiers and sailors sought positions in personal interviews and in thousands of letters. Many fine men entered the Service. There came, too, the demand for more homesteads on the public domain of the West, and this promoted irrigation projects which threatened the Yellowstone and other national parks with more serious exploitation than grazing of sheep would have wrought in war time. The fights against irrigation reservoirs and related works occupied much time for two years, but in the end, with the aid of strong outside organizations, we were successful in defeating all projects submitted.

Meantime, in 1919, the writer was made Superintendent of Yellowstone National Park and Field Assistant to the Director. To fill his vacated place in Washington, Mr. Mather drafted Arno B. Cammerer from the National Commission of Fine Arts. Mr. Cammerer brought to the Service wide experience in Government affairs, artistic temperament attuned to Washington park development, unselfish devotion to public duty, and personality that soon won him hosts of friends in national park territory.

An engineering organization was begun in the field in 1917 by the appointment of Geo. E. Goodwin as Civil Engineer to advise superintendents on technical matters and plan and supervise construction projects. His office was in Portland, Oregon. Quite often, this able man was assigned to parks as acting superintendent.

A year later, Charles P. Punchard was appointed Landscape Architect with headquarters in Denver. While Mark Daniels, of San Francisco, had been landscape architect for several months in 1914 and 1915, Mr. Punchard was the man who laid the foundations of the present Branch

of Plans and Design, one of the most important and effective divisions of the National Park Service.

In 1927, Frank A. Kittredge became Chief Engineer with headquarters at San Francisco. For ten years he was in charge of this important field office where technical work in engineering and landscape architecture was planned and directed for the western parks and monuments.

In 1920, Dr. Harold C. Bryant was officially engaged to take visitors afield and interpret for them the facts of Nature as found in the granite cliffs, domes and spires, the forests, meadows and waters of Yosemite Valley. Director Mather was attracted by his activity and so began another outstanding feature of public service in the national parks. Ansel F. Hall, back from a long European trip, following his war experience, and once more a ranger, rapidly built up in Yosemite Valley a notable collection of Indian handiwork and valuable objects of historic interest, thus laying the foundations for the museum, the building for which was provided by the Laura Spelman Rockefeller Memorial in 1924. The success of this museum subsequently moved the Trustees of the Memorial to provide funds for the museums and wayside information stations in Yellowstone Park, and these in turn prompted the contribution of funds for the Yavapai Station in Grand Canyon Park, and still later appropriations by Congress for museum buildings and equipment in many parks and monuments. Dr. Hermon C. Bumpus, Dr. John C. Merriam and other distinguished scientists aided museum development through the years, but Ansel F. Hall and Carl R. Russell of the Service actively directed the exhibit preparation and installation in the principal establishments. Dr. Bryant, as Assistant Director, now heads all the educational and research and museum activities.

Sanitation of the parks was initiated in 1920 when the U. S. Public Health Service, at our request, undertook a survey of conditions in the big western parks. Harry B. Hommon became Chief Sanitary Engineer in the West and in a few years designed and directed the construction of sewer and water systems that made the parks as safe from the standpoint of sanitation as the best-managed cities.

Ansel Hall directed forestry activities in the parks for years, but in 1929 a division of fire control was begun under John D. Coffman. This has been expanded to the Branch of Forestry of which Mr. Coffman is Chief Forester. In 1930, the Wildlife Division was established in a small way by the late George M. Wright with his own funds. It is now one of the most important divisions of the Service.

In 1931, the Congress authorized the appointment of a chief historian. Dr. V. E. Chatelain joined the Service in this capacity and achieved notable results in the following years.

The year 1921 was a momentous one in national park history. There was first the change of administration, and, for several months, there

was the prospect of a change in leadership of the Service with Mather, Albright and Cammerer, all appointed during the Wilson terms, possibly slated for replacement by active Republicans. Our fears were groundless, for Albert B. Fall promptly requested us to continue in office. He took a positive stand against politics in the Park Service, and told us to appoint the best men and women we could find. He never deviated from this policy and must go down in history as a strong friend of the National Parks.

Later in 1921, the Bureau of the Budget was established under General C. G. Dawes, and John R. McCarl was appointed Comptroller General. The Appropriations Committees of the Senate and the House of Representatives were reorganized and given power to initiate all appropriation bills. These steps gave the Interior Department and the Park Service more of an even break in money affairs with other Departments.

In the autumn of 1921, the new House Committee on Appropriations was set up under Martin B. Madden, who selected Congressman Louis C. Cramton of Michigan to head the subcommittee in charge of the Interior Department Appropriation Bill. Mr. Cramton had been on the Public Lands Committee and in 1919 worked hard to establish the Roosevelt Memorial National Park to include Sequoia Park and the Kings and Kern River regions in California. He was to serve ten years as Chairman of the Interior Department subcommittee of the Appropriations Committee, and in that time coöperated in building the financial structure of the National Park Service. Furthermore, he became the principal spokesman for the Service on the floor of the House and his powerful aid brought many park bills through to final enactment into law. Mr. Cramton said of Mr. Mather in a speech in Congress: "There will never come an end to the good that he has done." His name must always be linked with Mr. Mather's in relating the story of the Service in its formative years.

During the early twenties, tourists began long-distance motoring and swarmed into the national parks, making new problems to be met and solved. Park concessions and operations had to be reorganized, new operators with capital had to be found and interested in hotels, lodges, and transportation lines; campgrounds had to be planned and built; roads and trails had to be modernized to meet new traffic conditions. Many millions of dollars were invested by private individuals and corporations in tourist facilities, accommodations and services. In 1924, eight years after Federal aid to road building in the States was begun, the needs of the national parks were recognized when a bill authorizing \$2,500,000 per year for three years was signed by President Coolidge. The next year, the Bureau of Public Roads was asked to plan and supervise major park road projects.

Meanwhile not a month passed without earnest effort being devoted to establishment of new parks and enlargement of old members of the

system. In 1917, Mt. McKinley was made a national park; in 1919, Lafayette (now Acadia) and Grand Canyon; in 1919, Zion; in 1928, Bryce Canyon; in 1929, Grand Teton; in 1930, Carlsbad Caverns. In 1926, Congress authorized Great Smoky Mountains, Shenandoah and Mammoth Cave National Parks as and when the States secured and donated lands designated by the Park Service. In 1930, the Great Smoky Mountains area was established for protection; in 1935, Shenandoah entered the system; and in 1936, Mammoth Cave was established for protection. Isle Royale was authorized in 1931, Everglades of Florida in 1934, and Big Bend in Texas in 1935.

No one not a party to the struggle to build up this national park system can imagine the difficulties that had to be overcome to secure new parks or enlarge old ones. Almost every local grazing, irrigation, power, timber and resort interest, directly or indirectly affected, opposed us. Counties feared the loss of taxable property and held up our projects. Another Government bureau not only withheld support but organized local commercial interests against us. It took ten years to add the Kern River Canyon and Mt. Whitney to Sequoia Park and 13 years to get a partial Grand Teton National Park. Many worthy projects are still pending and still locally opposed, though twenty years have passed since Director Mather began work on them.

We had some bitter personal enemies to combat. It was necessary to bring legal action against Ralph H. Cameron of Arizona to eject him from mining claims controlling strategic points and trail routes in the Grand Canyon. Just as the U. S. Supreme Court ordered his removal, he was elected U. S. Senator. For years, he fought the Park Service in season and out. He and Senator Stanfield of Oregon, who disliked the Forest Service, got a Senate Resolution approved directing an investigation of both Services. A very unfair inquiry kept our organizations in turmoil most of 1925. It ended disastrously for both senators as both were defeated in 1926, but before leaving the Senate, Mr. Cameron was forced out of the Grand Canyon under threat of punishment for contempt of the Supreme Court.

Worn out by incessant activity, Mr. Mather fell ill in 1928, and the writer, his associate from the beginning of his Government service, took his place on January 12, 1929. He worked to consolidate the gains of his illustrious predecessor, to establish new parks and win approval of enlargement projects. He saw reorganization of Government bureaus become a live issue and sought to strengthen the Service by bringing about a merger of the military parks organization with the National Park Service. In 1930, Congress assigned to the Service the task of restoring George Washington's Birthplace at Wakefield, and the same year authorized the Colonial National Monument embracing Yorktown Battlefield, parts of Williamsburg and Jamestown Island.

In 1932, President Hoover ordered a reorganization of Federal

agencies which contemplated a merger of military and historic areas under the War Department with those under the National Park Service, but his plans failed of support in Congress. He also contemplated transfer of the District of Columbia parks and parkways to the Interior Department.

Finally, we come to 1933, and the present Administration. Again there was no change in leadership and the Service remained free of political influence and control. In June, President Roosevelt issued an order consolidating all park activities in the National Park Service. He transferred all War Department parks and monuments, all District of Columbia parks, parkways and historic sites, all national cemeteries, many memorials and miscellaneous areas, and most of the public buildings in Washington and elsewhere except post offices. This was a very sweeping order and overburdened the enlarged Service. In the course of a few weeks most of the cemeteries were receded by executive order to the War Department. The public buildings should have been assigned to some other agency at the same time. They are still under the Service, but obviously do not belong there.

The Civilian Conservation Corps was organized in April, 1933, and the Park Service at once assumed a large share of the responsibility for its effective employment. This involved supervision of state park projects, and in other directions took it far away from Federal park administration.

With the reorganization authorized and effective, the CCC well launched in the national parks, and many projects approved for PWA funds, the second director of the Service felt that his work was done and he retired to private business. As this is written, Director Cammerer, the third of the "Mather Group" to hold this office, is completing four years of magnificent accomplishment in the vastly enlarged bureau. He has had the support of Secretary Ickes, a very courageous cabinet officer and one who has sought at all times to strengthen the Department and its conservation agencies. It must be said, too, that during the past twenty years the Service has had the sympathetic consideration and deep interest of the five Presidents, Woodrow Wilson to Franklin D. Roosevelt, and the seven Secretaries of the Interior, Franklin K. Lane to Harold L. Ickes, all inclusive. These Presidents and Department Heads have felt the influence of Stephen Mather's genius, personality and generosity, and they fully realized that the Service is what it is today because exceptionally able men and women were attracted to it.

As its third decade begins, with jurisdiction over 26 national parks, 71 national monuments and numerous other areas, the Service moves into the new Interior Department building, this time occupying whole floors in whole wings of an enormous structure, a fine strong bureau, appreciated by Americans everywhere for outstanding achievement in its special field of conservation.

A Review of the Year in the National Parks

ARNO B. CAMMERER, Director, National Park Service

SINCE the issuance of the last annual report of the American Planning and Civic Association, significant conservation measures have been put into effect, yet any satisfaction in achievement by this Service has been dimmed by the sense that the great field of progressive potentialities has still remained almost untouched. The general goal toward which the National Park Service is working may be expressed in these words:

The park concept provides a new form of land use, humanly satisfying, economically justifiable, and with far-reaching social implications. Inherent in it is a new recognition of human values and a more intelligent method of commercial exploitation. As such, it is a progressive step of land utilization and must take its place along with the other great land-use techniques such as forestry, agriculture, and mining. While it has been given considerable impetus in this country it is still in its infancy. When it has been accorded proper recognition, the National Park System will comprise fewer lands than those devoted to forestry and agriculture but it will include those areas and structures which cannot be adequately preserved or properly used under any other category of land management.

GROWTH OF THE NATIONAL PARK SYSTEM

New and Authorized Areas. Mammoth Cave National Park, Kentucky, was established May 22, 1936. The Federal Government has acquired 34,620.31 acres of lands for the park, of which 5,488.24 acres have been acquired since July 1, 1936. No general development of the park may be undertaken until a total of 45,310 acres have been acquired. The maximum authorized boundary would include 70,318 acres.

Joshua Tree National Monument, California, including 825,340 acres, was established by Presidential Proclamation January 22, 1927, to preserve an outstanding example of desert flora and fauna.

Organ Pipe Cactus National Monument, Arizona, including 330,690 acres, was established April 13, 1937, to preserve the finest stand of the organ pipe cactus found within this country and other rare forms of native flora and fauna characteristic of the Southwestern deserts.

Zion National Monument, Utah, including 49,850 acres adjacent to Zion National Park, was established by Presidential Proclamation, January 22, 1937. The area presents outstanding examples of sandstone erosion, somewhat similar to that of Zion National Park but of more recent origin and more highly colored.

Ocmulgee National Monument, Georgia, was established December 23, 1936, in accordance with the Act of June 13, 1937, to preserve one of the most remarkable ruins of Southeastern archeology.

Perry's Victory Memorial, Ohio, was established by Presidential Proclamation, July 6, 1936. Prior to that time the Memorial was administered by the Perry's Victory Memorial Commission, which is now

functioning as an advisory board concerning matters affecting the Memorial.

During the present year a number of bills affecting historic sites have been introduced into both houses of the Congress. Among the areas authorized in 1936 for acquisition, when the necessary lands have been acquired, are the following:

Fort Frederica National Monument, Georgia, the site of an important fort erected in 1746 as the military headquarters of James Edward Oglethorpe, founder of Georgia, as an outpost providing protection against Spanish aggression; *Richmond National Battlefield Park*, Virginia, the scene of a number of battles and military movements in the defense of Richmond during the war between the States; *Whitman National Monument*, Washington, the site of Walilaptu Mission, established 1836 by Dr. Marcus Whitman and his wife, famous among early American settlers in the disputed Oregon Country; and *Homestead National Monument*, Nebraska, the site of the first homestead in the United States entered under the General Homestead Act of 1862, which opened the West to free settlement.

In several important national park projects previously authorized for national park status by Acts of Congress, when the necessary lands have been acquired, the following developments occurred: In the proposed *Great Smoky Mountains National Park*, 16,805.5 acres of land have been acquired since July 1, 1936. A total of 411,688 acres have been acquired thus far within the proposed park and there remains 52,560.24 acres yet to be acquired.

The Act of Congress authorizing the establishment of the *Big Bend National Park*, when the necessary lands have been acquired, designated an area of 736,000 acres for park purposes. The State of Texas now owns 285,640 acres. A bill to appropriate \$750,000 for the acquisition of park lands was passed by the State Senate and House of Representatives but it was vetoed by the Governor. Recently a prominent paper in Texas started a campaign to secure a million contributions of a dollar each to be used towards the purchase of the necessary lands.

Within the area of approximately 1,250,000 acres authorized by Act of Congress for *Everglades National Park* when the necessary lands have been acquired by the State of Florida, there are approximately 500,000 acres of state-owned lands.

No privately owned lands have yet been purchased within the area and no funds have been appropriated or donated for that purpose.

The proposed *Isle Royale National Park* includes approximately 133,000 acres, of which 10,666.35 acres are public domain. Since July 1, 1936, the Federal Government has acquired 28,810 acres, for Civilian Conservation Corps purposes, and the balance of the available Federal funds has been obligated.

National Monument Boundary Extensions. On March 26, 1937, the



The Grand and Middle Tetons—the end of the trail at the head of Cascade Canyon

Photograph by George A. Grant
Courtesy U. S. Department of the Interior



The Whale-back, rising high above the floor of Cloudy Canyon in the proposed Kings River Canyon National Park

Photograph by Ansel Adams

Courtesy U. S. Department of the Interior

boundaries of *Death Valley National Monument* were extended by Presidential Proclamation to include five areas comprising approximately 305,920 acres, for the inclusion of important springs and to provide a more complete geological, biological, and administrative unit.

On February 23, 1937, the boundaries of *Montezuma Castle National Monument* were extended by Presidential Proclamation to include 360 acres. This extension includes additional prehistoric ruins and provides a better administrative unit.

The boundaries of *Tonto National Monument* were extended by Presidential Proclamation April 1, 1937, adding thereby 480 acres to the monument for administrative purposes.

The total area of the lands administered as national parks and national monuments was increased by an aggregate of 1,598,340 acres during the past year.

Parkways, a New Vehicle for Conservation. The *Blue Ridge Parkway* project, 480 miles in length, is about 25 per cent under grading contract. Work is now concentrated on the 133-mile section between Shenandoah and Great Smoky Mountains National Parks. The *Natchez Trace Parkway* project, 500 miles long, is now just beyond the survey stage. Three sections totaling 35 miles, all in the vicinity of Jackson and Natchez, Mississippi, are under way.

The Service is studying parkway possibilities throughout the country with special reference to interstate features; and the United States Bureau of Public Roads is continuing its nation-wide highway planning survey. When the values of the parkway, as contrasted with the ordinary signboard highways, are generally perceived by the public, the character of our national highway system will certainly be revolutionized.

National Seashore. In addition to national parks and monuments, it seems desirable that national seashores be included in the National Park System. The ocean beaches constitute a limited and rapidly diminishing resource, large sections of which should forever be preserved for public benefit and use.

For many months the Service coöperated with the WPA, providing technical supervision of activities of that organization in the Cape Hatteras, North Carolina, region. Work being done at that time was on a beach fixation project as a means of improving recreational use along the 175 miles of ocean shoreline between the Virginia-North Carolina line south to Ocracoke Inlet. It soon became evident that the peninsula-like series of narrow islands have certain outstanding recreational potentialities. In July of last year the Service took over entire responsibility for the project and assumed control of the WPA camps on the islands. The area is described in this ANNUAL by Assistant Director Conrad L. Wirth. Congressman Lindsay Warren of North Carolina has recently introduced H. R. 7022 to establish Cape Hatteras National Seashore.

Land Purchases in National Parks and National Monuments. The

program to eliminate undesirable privately owned lands from established areas of the National Park System continued on a small scale, 10,815 acres lying in various units of the System having been purchased during the year, at a cost of \$509,039. Purchases were made in seven areas, the largest acquisition being 3,776 acres in Shenandoah National Park. Other lands were purchased in Glacier and Mammoth Cave National Parks, Petrified Forest National Monument, Colonial National Historical Park, Petersburg National Military Park, and Kenesaw Mountain Battlefield Site.

Yosemite Sugar Pine Extension. An exceptionally fine forest of Sugar Pines, adjacent to Yosemite National Park and traversed by one of the main roads leading to the park, has been threatened with devastation by logging. A wave of public protest has resulted in the passage of legislation which authorized the use of Federal funds to purchase about 7,000 acres of the finest part of this forest. The authorized purchase, when consummated, will save for public enjoyment one of the most beautiful sugar pine forests in existence.

Mount Olympus National Park, urged for nearly a generation by people interested in the conservation of outstanding examples of landscape beauty, unusual forest conditions and vanishing species of wildlife, is described in this ANNUAL by Major Tomlinson. Legislation to establish the park received full hearings before the Public Lands Committee of the House in 1936. The resulting mass of evidence concerning the local effects of the project led to a demand for a further study of the boundaries of the proposed park. The new bill, H.R.4724 in the 75th Congress to create the park, provides for the elimination of certain areas of commercially available forest which are complicated by private ownership. It also adds certain areas of scenic timber-line country. It is believed that this bill satisfies the only valid objections to the original proposal and, at the same time, retains all of its most desirable features.

Proposed Kings Canyon National Park. The Kings River region of California, for many years urged as a national park by lovers of the High Sierra country, is described in this volume by Dr. Horning.

Glacier Bay. The proposal to establish Glacier Bay National Monument as a national park is receiving consideration. In this area spectacular glaciers flow from lofty mountain ranges directly to the sea. Forests teeming with interesting forms of wildlife are encroaching upon land recently vacated by the receding ice sheet. Glacier Bay consequently combines a scene of unusual scenic majesty with features of great scientific interest. The area has recently been opened to mineral prospecting and it is feared that there may be activities causing serious disturbance of important natural values. These activities are being studied to determine whether or not they affect the park proposal. At the same time further study is being given to the needs of wildlife,

with special attention to the requirements for the perpetuation of the great Alaska brown bear.

Grand Teton National Park. The proposed extension of Grand Teton National Park boundaries necessary to provide a proper setting for and approach to the magnificent scenery within the park is most important. Struthers Burt presents the situation in a vigorous article in this ANNUAL.

Green Mountains. It has been repeatedly suggested to the Service that it consider the Green Mountains of Vermont as being of possible national park calibre and we have examined the region rather thoroughly, with the result that an area along the crest of the Green Mountain Range to include Mount Mansfield and Camels Hump is adjudged worthy of national park status if sufficient lands can be acquired and donated to the Federal Government. The State of Vermont recently enacted legislation authorizing the Governor to appoint a commission to investigate and report upon the proposal. No legislation has as yet been introduced into Congress. The area is described in this volume by Associate Director Demaray.

Mount Katahdin National Park. A proposal for the establishment of Mount Katahdin National Park, Maine, came to us from Governor Brann in 1936 and a preliminary investigation of the region has been made. It is a splendid mountain and forest wilderness believed to be worthy of national park status, provided enough land is included to comprise a superlative area. Representative Brewster of Maine has introduced a bill (H.R.6599) in Congress to establish the area as a national park. Planning experts of this Service who have visited the Katahdin area have been favorably impressed with its potentialities. Myron Avery describes the area in this volume.

The proposed *Capitol Reef National Monument* in Utah has been studied thoroughly and a form of proclamation for its establishment is pending. This area is considered worthy of national monument status, since it is probably the finest known example showing large-scale folding of the earth's surface.

In the *Wupatki National Monument* region of Arizona, more than 125 sites of important archeological interest have been recorded, and evidence indicates that there are many more. All of the sites need protection from the elements and from pot hunters. The monument was enlarged by 33,630 acres through Presidential Proclamation July 9, 1937.

In addition to the foregoing projects, the President signed a bill on June 2, 1937, authorizing acceptance by the Federal Government from the State of Arkansas, of jurisdiction over all lands now or hereafter included within Hot Springs National Park.

Surveys and Planning Studies. One of the most significant pursuits now under way is the park, parkway and recreational area study, organized under the Park Planning Act (Pub. Law No. 770 $\frac{1}{2}$) of 1936.

This has provided an opportunity for this Service to continue acceptance and coördination of field data in line with the start made in 1934 when we prepared the first comprehensive outline of recreational land use for publication as a National Resources Board report. A fundamental principle of the study is that the States themselves shall furnish data as required. Almost all of the States are paying sufficient attention to park, parkway and recreational area planning to be able to provide all data necessary to the ultimate summaries and recommendations necessary to actual development of the related chains of areas the study will suggest. A small force of well-trained representatives has been placed in the field to coöperate with the States in the compilation and analysis of the data. The survey is further described in the ANNUAL by Ben H. Thompson.

Another project of the study type is the *Historic and Archeological Site Survey* which was continued and strengthened during the year. One of the important forward steps in this work has been the formulation of procedure for classifying the vast number of historic sites eligible for inclusion in the survey according to principal periods or epochs of American history. The survey provides for a more comprehensive analysis of sites than we have had before as a basis of possible selection of areas for the National Park System and the state park systems.

A master index of research subjects has been set up in Washington as a clearing house for all field reports. Micro-copying and projection equipment was secured for each of the four regional historians in the field in order to facilitate speedy reproduction of documentary evidence wherever found.

The *Historic American Buildings Survey*, which the National Park Service has conducted under several phases of the Emergency Relief program since 1933, is a means of securing by measured drawings, photographs and technical notes, a graphic record of early American architecture and related historic structures. The American Institute of Architects and the Library of Congress have collaborated in this work. Other assistance has been provided by schools and colleges, organizations of a civic nature and interested individuals. In January, 1936, the survey was taken over as a national project of the WPA under the direction and supervision of this Service. Operations were carried all year in thirty-one States with the employment of about 600 architects, draftsmen and other types of workers.

Production since the Survey was started in 1933, through to June 30, 1937, included a total of 14,000 measured drawings of 2,100 buildings and 16,000 photographs of 3,500 buildings. All results in final form are deposited in the Library of Congress, where they are made available for public use. Contributions of the Historic American Buildings Survey have included an outline of the development of early American architecture, an intensive study in the field of American garrison houses in

New England, and a special study of early architecture in the District of Columbia and vicinity. Accomplishments thus far have only scratched the surface of the work yet to be covered by the Survey. Schools, libraries, professional architects and other interested individuals have made heavy demands on the records already available.

In the National Park Service we have for years based our annual improvement work on *master plans* and related development outlines. So successful has been this system of graphically accounting past, current and potential development work on a few sheets of drawings for each area, that it seemed a wise system to incorporate as standard in state park planning. We now require complete master plans for all areas we are interested in developing, regardless of classification. Results have been excellent in point of crystallizing knowledge of what development each area will stand, and how to go about that development in a logical way by project priorities. Long-range master plans are the best guarantee of continuation of the policies and standards to be met in future work progress, as established in each case while we are actually on the job doing development work for local park authorities. In short, the master plan, when properly handled, is the best single picture of ultimate objectives yet devised in simple form to leave as a constant guide for all concerned.

PROTECTION AND USE OF THE NATIONAL PARK SYSTEM

Types of Fees Now in Use, Travel Figures, and Revenues. Nearly ten million people used the National Park System this past year. Ten years ago the figure was 2,797,840. The increase in use, and in numbers of areas, brings realization of how universally the national park idea is being accepted, and how definite are our responsibilities to the people of the country for maintaining the system against any and all proposals that might be made contrary to the purpose each unit of the System serves.

All our charges fall within twelve general special-service types or classifications, none of which are designed for profit. All revenues accrue to the general Federal Treasury rather than to specific park projects and our record of receipts by areas is used later on to help support requests for general annual operating funds. Most special services granted, such as use of park telephones, sale of park-owned wood, use of park highway systems by privately owned vehicles, special guide service, operation of public accommodations such as hotels, camps, buses, and saddle animals are charged for.

Physical Improvements. A Congressional allotment of \$6,600,000 for the fiscal year, 1937, permitted the Service to continue its regular roads and trails program of surveys, construction, and maintenance in park areas and on designated approach roads. Continuing with the established inter-bureau agreement, the Bureau of Public Roads acted as the major highway construction agency, and the National Park Service furnished landscape and architectural plans and advice.

Emergency Funds. Total allotments of emergency funds were \$18,316,549.07 for Emergency Conservation Work; \$1,527,891.40 for Public Works projects; and \$15,561,714.89 for Works Progress Administration projects. I feel that every dollar was spent gainfully. Every project undertaken was carefully planned and systematically operated with a view to best possible efficiency.

Restoration, protection and stabilization work in historic areas was conducted from emergency funds. One of the most interesting restorations is that of the eighteenth-century Franciscan Mission, La Purisima Concepcion, of California. Another is the work at Goliad, Texas. A continuing restoration and stabilization program is of vital importance in the Southwestern National Monuments to preserve values tending to disappear due to ravages of the elements alone.

Forest Protection Activities. The conservation of national park areas in their natural state by such means as will leave them unimpaired for the enjoyment of the future generations, not only involves restricting the public to extreme care in its use of these national lands, and the employment of a highly specialized personnel, but also entails a number of protective measures against natural destructive forces, as for example, the suppression of forest fires and the control of insects and tree diseases.

The fire season of 1936, because of its length and severity, will be long remembered as one of the worst in the history of the Service. The year was notable for six disastrous fires; three at Isle Royale, two at Great Smokies and one at Glacier. The fires were brought under control through the cooperation of CCC enrollees and ECW supervisory personnel from national park, state park, and national forest camps nearby. The fire at Glacier National Park, set by lightning, burned 7,642 acres. This fire has created a scar in one of the most scenic portions of the park. In suppressing the fire the local national park foresters received valuable aid from the United States Forest Service, ECW, and CCC labor from the Bureau of Indian Affairs and the Bureau of Reclamation.

The valuable aid rendered during 1936 by CCC enrollees attached to national and state park camps, suggested that training in the rudiments of proper fire suppression would add greatly to the value of these men, now used to a large extent as the first line of defense on the larger fires. Consequently during the past year a training program was inaugurated. Every enrollee now receives a minimum of one full day's training and in every camp there is now one crew of enrollees trained in fire suppression.

The Branch of Forestry continued its work of taking large-scale panoramic photographs of existing, proposed and emergency lookouts and observation points as a means of improving fire detection.

The war against insect epidemic is a never-ending one. Improvement in one area is likely to be offset by the appearance of a new pest in another region. Looking at the picture as a whole, however, definite improvement can be recorded for the western parks and monuments.

This is especially true in the Sierra region. Losses from all insects at Glacier National Park have been reduced considerably. The mountain pine beetle has made serious inroads in certain parts of the Yellowstone and Grand Teton National Parks. Throughout the Southwest the Black Hills beetle infestation is increasing. One of the worst situations is at Bryce Canyon National Park, where epidemics of both the Black Hills and Douglas fir beetle have reached serious proportions.

A satisfactory degree of control over the usual insect pests in the East was obtained by poison sprays applied by high-powered sprayers located at strategic points. In the case of the canker worm, an interesting experiment was undertaken in May, 1936, at the Morristown National Historical Park. Here arsenical sprays were applied by an autogiro—the first recorded spraying of a forest area by such means. The results were highly satisfactory.

The year 1936 was marked by the emergence of the largest of the northeastern broods of periodic cicadas, better known as the seventeen-year locusts. In certain eastern areas considerable damage was done to the terminal twigs of deciduous trees.

Marked gains were made during the past season in the control of the white pine blister rust. For the time being it has been eradicated in the Shenandoah and Acadia National Parks.

In 1933 we undertook to complete a vegetation cover map of each national park and monument. Such maps are valuable for the information they furnish regarding plant successions. Their greatest use, however, is in the planning of protective measures so as to coördinate them with activities for the management of wildlife and for the administrative uses of the area.

During 1936, vegetative cover maps were practically completed for all the western national parks. There now remains unmapped only a few of the national monuments and portions of newly established eastern national parks.

An important part of these mapping activities is the collecting and listing of all plants found. Several hundred new plants have been identified and added to the park museums.

Wildlife. Special grazing and wildlife studies were made in the wilderness sections of the High Sierra from Sequoia to Yosemite. Range studies were continued at Grand Canyon, Rocky Mountain and Yellowstone National Parks. The survey of plants of the Great Smoky Mountains National Park was continued all year. About 20 species of the higher plants were added to approximately 1,000 species represented by the 4,000 specimens in the park collection. Of these species four are new to the flora of the southern States.

Extensive wildlife studies have been made in the proposed Big Bend National Park area in line with our desire to obtain all possible knowledge of the region in general for administrative use whenever the park

is actually established. Surveys and detailed field studies were carried on at the Oregon Caves, Fort Pulaski, Lava Beds, and many other areas with a view to acquiring further knowledge of wildlife habits and what problems the future will bring in relationship of wildlife to other features of the National Park System.

Activities in fish conservation have been significant. Based on the fish culture policy adopted in April, 1936, there has been no encroachment of exotic species of fish in national parks waters. Lakes and streams where only native fish are found, and waters that do not contain any fish, have received careful study looking to their protection from any artificial development. Some twenty-seven million black-spotted trout eggs were taken in Yellowstone National Park by the Bureau of Fisheries, Department of Commerce, during the year. Of this number the National Park Service received approximately 70 per cent. Eggs were taken from a number of other national parks and the fry returned to park waters. The State of Montana collected some twenty million loch leven eggs at West Yellowstone. After hatching, more than 20 per cent of the fry were returned to park waters.

Egg exchanges have been effected in Utah, Idaho and Oregon whereby waters have been stocked at no cost to the Service. Altogether more than thirty million fish were planted in the National Park System during the year. There is much evidence of improved fishing conditions throughout the System, and it is believed that present propagation methods are a fair guarantee of continuation of the sport on a reasonable scale.

A good deal of the work of the Wildlife Division for the year has been published in a group of thirty papers all prepared by various members and collectively covering a wide range of wildlife work in the National Park System field.

Museums. An outstanding development of the Service's interpretative program during the year has been the advance in museum planning and construction—a growth made possible by allotments of Public Works funds. The year also witnessed the formulation of a policy whereby each museum will tell not only the history of the park and locality in which it is located, but its exhibits will be so coördinated with those of adjacent park museums that it will form one of a series of links in a chain designed to present one continuous picture of historical and natural events.

The museum now under construction at Tumacacori National Monument illustrates the Service's present aims. This project is the most interesting example of museum work in the western areas during the past year. The purpose of establishing the museum and its exhibits is to interpret the story of old Tumacacori and the culture and activities that characterized the Kino chain of Spanish missions started during the seventeenth century in northern Mexico and southern Arizona. Approximately \$57,000 was allotted for construction of the museum.

The greater part of museum activity for the year took place in the eastern areas, where the undertaking is of comparatively recent date. A new museum was constructed at Mōrristown National Historical Park. Exhibits were completed and opened to the public at Vicksburg National Military Park, and at Hot Springs National Park. Exhibits and museum equipment were assembled for a total of thirty areas of the National Park System. Exhibit plans were approved for seven others.

Educational Activities. The public eagerly avails itself of our educational facilities. During the past year park naturalists conducted some 22,000 trips attended by about 338,000 park visitors. No less than 15,995 lectures were given in national park areas to some 1,106,000 listeners. National park museums during 1936 attracted over 3,000,000 people.

Ranger historians, lectures, museums, markers and literature all contribute toward making the historical areas under the jurisdiction of the National Park Service one of the world's outstanding exhibits. The above figures do not include those making use of the interpretive facilities found in national historical areas. Their popularity can be judged from the fact that during May, 1937, historians attached to the Colonial National Historical Park conducted 82 special parties totaling 3,567 persons on tours of that park.

The year has witnessed a steady growth in the use of parks as outdoor laboratories or classrooms. The Service is also able to render valuable aid to an increasing number of scientists engaged in conducting many scientific investigations. Among the more important special studies carried on during the past year were those dealing with fish food conditions and with radio activity of rocks and waters in the Yellowstone National Park; the volcanology of Crater Lakes; the archæan Rocks of the Grand Canyon; the glaciation of the High Sierra in Sequoia; the geology of Zion National Park; the spiders of the Great Smokies, and another dealing with plants causing colored snow.

COÖPERATION WITH THE STATES

The year 1936 probably witnessed the high-water mark of Federal activity in state parks. Recent curtailment of emergency funds has necessitated the gradual decline of physical development by Federal means in state, county, and other park areas not under the jurisdiction of the National Park Service. That curtailment was anticipated in 1933 at the start of the intensive state coöperation.

The present reduction of funds does not imply that the Federal Government, through the National Park Service, will eventually cease to coöperate with the States in the field of recreational planning. Permanent coöperation on the part of the National Park Service was assured in 1936 by the passage of the Park Planning Act. That act enables the

National Park Service to offer to the States the same degree of Federal coöperation already existing in the fields of education and forestry.

Federal coöperation has contributed greatly to the steadily growing interest on the part of the States in their park resources, and to their desire to continue the further development of their park systems after Federal funds have been curtailed or withdrawn.

The annual travel business in this country, now estimated conservatively at five billion dollars, is a tremendous growing force and is reason enough to fear that state park recreational systems are in some danger of growing more swiftly than careful coördinated planning should permit.

About the first of the year we established our first permanent *Travel Bureau* office at 45 Broadway in New York City, with the aim of coördinating the efforts of the Federal and state governments in making the public better acquainted with recreational facilities of the Nation.

No less than twenty-eight of the forty-eight States now have their own public relations offices, all preparing data of a travel nature. We try to provide a complete service to vacationists by planning park trips.

I am glad here to express the appreciation of the National Park Service for the splendid coöperative work done by the American Planning and Civic Association. With characteristic vigor, the Association has championed the National Park System before all adversity, and has constantly sought ways and means to strengthen the Service. It is only by reason of such conservation organizations as the American Planning and Civic Association and the National Conference on State Parks that the National Park Service and the various state park organizations are enabled to maintain ideals and standards for park areas. Through the joint publications and conferences of the two organizations, a valuable educational program is carried on to acquaint the public with park problems and park service. Indeed the publications may well be considered as philosophical and practical textbooks in park theory and practice.

Among the publications of the Service for the year, the following are of special interest:

- Glimpses of Historical Areas East of the Mississippi River.
- Ferns and Flowering Plants of Isle Royale.
- Birds and Mammals of Mount McKinley National Park (Fauna No. 3).
- Park Structures and Facilities.
- Municipal and County Parks.
- National Parks and Emergency Conservation Work (revised edition).
- Glimpses of Our National Parks (revised edition).
- Recreational Demonstration Projects.
- Digest of Laws Relating to State Parks.
- The CCC and Its Contribution to a Nation-wide State Park Recreational Program (Compiled by National Park Service and printed by ECW).
- Landscape Conservation.
- National Park Service, Emergency Activities in National Parks and Monuments, State Parks and Recreation Areas, and Recreational Demonstration Areas.
- Geysers of Yellowstone.
- Self-Guiding Auto Tours of Yosemite Valley.
- High Waterfalls of the World.



Sawtooth Ridge, Cascade Range

Photograph by Hermann F. Ulrichs
Courtesy *Sierra Club Bulletin*



Boston Glacier, from Mount Buckner, Cascade Range

Photograph by Hermann F. Ulrichs
Courtesy *Sierra Club Bulletin*

Atmosphere in the National Parks*

JOHN R. WHITE, Superintendent, Sequoia National Park, Calif.

PERHAPS the public uses which affect the atmosphere of a national park are those connected with the recreation and entertainment of visitors.

Some of the questions that arise pertain to campfire entertainments, quiet camps and the use of curfew, entrance hours, radios in automobiles or operators' buildings, dances, tennis courts, golf courses, artificial swimming-pools, bands, loudspeaker public announcers, electric lighting, winter sports, and so on.

Then in connection with the business of public operators we must consider the soliciting of conventions to fill up the hotels and camps, particularly at the slack opening and closing of the summer season; the publicity issued by the operators or their agents, whether by folders or in magazines or newspapers, and also by word of mouth at their own entertainments within their leased areas or on their buses.

The atmosphere of a park is also affected by the educational programs and building construction advocated by sincere friends of the parks or by technicians interested vastly in their own work, but lacking the experience or the ability to understand the administrative policy with its permanent policies and objectives.

Let us consider at least some of these matters affecting park atmosphere above outlined. It will be necessary of course for me to refer chiefly to conditions and treatment in the Sequoia National Park, while fully understanding that other superintendents have had variations of the same problems and may have solved them better than we have done. It is only by pooling all our experience that we may be able to make visible some of those aspects of park atmosphere which are so difficult to define. If we can put them into form, we may be able better to settle upon some principles and policies which affect park atmosphere.

I would like the following observations to be considered merely as an humble contribution to thought upon a foremost and all-embracing park problem. It is so important for present and future park welfare that all of us in the Service must help in its solution.

There are four parties who have an interest in a national park: (1) future generations of Americans who have prospective inheritance in the country's natural resources and unspoiled scenery; (2) the people who visit the park and those who pay taxes to support it; (3) the Government, represented by the superintendent and his associates; and (4) the public operators who have invested their money and must have both security for the investment and fair returns from it.

Under the general policies of the Department of the Interior and

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the National Park Service, it is the superintendent who must play fair with all four parties and must harmonize the inevitable conflicts.

The interest of future Americans in the park is bound up with the pride and responsibility that park officials, public operators and many visitors must feel in the share they have in preserving such choice parts of America to assist in the perpetuation of what is worth while in America. No man can live and work amid the fine permanent things of nature in the national parks and feel concerned only with his little affairs of today. Indeed, there is reason to believe that any interest that does not take the larger view cannot permanently succeed in national park business or administration. Fate may well curse those who are false to such a noble heritage.

The interest of the people is perhaps the most difficult of all to define in these perplexing days of social and economic changes. Visitors demand opportunity for physical and esthetic enjoyment of park scenery, but also for amusement, entertainment, and instruction. There is a natural and steady pressure to place amusement and entertainment above other requirements. In many national parks the interests of local visitors conflict with those of national visitors and with the preservation of the park for the future.

The interest of the Government is in the general condition of the park, its good administration, protection and maintenance; the curtailment of expenditures, actual and prospective, to come within a reasonable budget; the orderly development of plans and their restrictions to the absolutely essential; and the morale of the park organization.

The interest of the public operators, while primarily the protection of, and return on, investment, must extend to many aspects of the interest of the other three parties, because unless the Government administration is good and fair to all, unless the visitors are satisfied and the park preserved, more indirect harm will be done to the operators' investment than by almost any direct regulation of schedules and prices.

Campfire entertainments and educational work: There should be no paid entertainers unless they deal in the natural sciences, or in approved park diversions such as mountaineering, riding, hiking or winter sports.

The entertainment should be refined in its best sense, and so far as possible along natural history lines and explanatory of the park or other parks. This is a tremendous field, barely touched.

The audiences should not be too large; 500 is about our limit except on peak holidays. When the crowds grow we start new campfires. Of course, our policy of not to exceed about 300 camps in any one area helps. Participation by visitors is the keynote. There should be more funds to pay short-time assistants and provisions of accommodations for them.

No permanent platforms, stages or sounding boards should be permitted. If possible, an actual campfire should be lit, and the entertainment center around it.

Just a warning about the scheduled, out-of-doors peripatetic lectures, hikes and automobile caravans; they may grow to be too large or unwieldy or they may lack the best objectives, all in an endeavor to make a big showing in numbers served in the educational program.

Park Entrance Hours and Quiet Camps: We admit travel up to 9 P.M. weekdays, 11 P.M. on Saturdays and days preceding a holiday. We open at 5 A.M. the year round. The complaints against these hours are fewer than formerly. We are reasonable about special permits and conditions, but not liberal.

We discourage rather forcibly unnecessary noise in public camps and all public areas at all times; and we impose a virtual curfew after 11 P.M. No automobiles are permitted to roam around after that hour except by special permit. If there are complaints, the visitor might be referred to the practices in many city parks which are closed at night.

Radios and Loudspeakers: We do not permit any use which makes a loudspeaker publicly available or may annoy others. We do not permit them in hotels or operators' units. But we realize that probably we must come to permitting a radio in some places in the operators' unit. Then its use must be carefully regulated to avoid jazz programs and any blaring forth that is improper.

Dances: Dances are one of the most difficult things to regulate. We dance only from 9 to 11 P.M. None on Sundays. I wish we could abolish them, but don't think it possible until we build up more of the right kind of entertainment.

Tennis-Courts and Golf-Courses: We have avoided both. Formerly there was more pressure for them than there is now.

Swimming-Pools: We have no artificial or commercial pool and don't want one. We have worked out and improved two or three river pools, and might even consider warming them if the apparatus could be hidden.

Band and Music: Years ago we used to have bands for the Fourth of July and other occasions, but we are gradually getting away from them.

The violin and flute with perhaps the cornet are the best instruments for campfire use, with, of course, the piano.

Just now we have a proposal to install an organ at our Giant Forest amphitheater in the heart of the Big Tree area. It sounds properly atmospheric; but we are only considering it and our thumbs are inclining downwards.

Electric Lighting: Electric lighting is such an accepted utility that at first it seems necessary everywhere in public or operator areas. Yet nothing conduces so much to a quiet park atmosphere as general darkness except in and near buildings. We have only small Kohler plants and no general street lighting. We may install small Diesel or hydro plants in certain localities, but we are against street or highway lighting.

Operators' cabins are lit by kerosene hand lamps and candles. Many

visitors like it. Few complain. Some are loud in approval. I think that with a little pressure we could have had a \$100,000 electric light layout at Giant Forest a few years ago; but we are now glad that the pressure was not exercised.

Motion Pictures: We have no commercial pictures and believe that all should be educational with perhaps newsreel added. Certainly most careful supervision is necessary.

The filming by commercial companies in the parks needs most careful thought and supervision, and only certain types of pictures should be permitted. A standardized form of permit and a bond are needed. The personal conduct of employees must be carefully supervised. Secretary Ickes has much improved conditions; but more thought must be given to distinguishing between the good and bad producers.

Winter Sports: Emphasis should be placed on opportunities for everyone to take part in free sports rather than on featured performances and competitions.

Skating-rink, toboggan-slide, and ski-runs should be as natural as possible and with little or no artificial construction. No charge should be made for their use. No attempt should be made to rival professional winter sport areas. Winter sports should be incidental to winter use of the park, not entirely dominate it.

Any mechanical aid to winter sports such as a ski-elevator or a toboggan elevator is out of place. Improvement of facilities should be limited.

In an attempt to excel and to build up operators' winter accommodations, there is a danger of commercializing winter sports and finally of injuring atmosphere and even scenery. If operators make considerable financial investment in winter sports facilities, equipment, buildings, and so forth, there is danger that winter sports will dominate the picture, be improperly commercialized, and make a hurly-burly of the park in winter.

Public Operators: In their desire, indeed their necessity, to make proper returns on their investments, the operators may easily damage park atmosphere to their own financial disadvantage. Their publicity should be carefully supervised to prevent extravagant and inaccurate statements or anything that will cheapen the park. The operators' entertainments are likely to degenerate into cheap vaudeville shows designed merely to entertain the average visitor unappreciative of nature.

There is danger in the conventions which are so eagerly sought to fill accommodations at beginning and end of summer season. Some types of conventions are opportunities largely for dissipation rather than enjoyment of nature. A man does not need the larger part of a bottle of booze to enjoy our park scenery.

The operator, too, often wants to operate a type of large bus and ballyhoo sightseeing service which much detracts from park atmosphere.

We have a strict 14-passenger limit on our buses and hope to maintain it. Perhaps it is too large now.

Fortunate indeed is the superintendent who deals with a park operator who can see or feel beyond the end of his nose; and who can realize that the proper park atmosphere will in the long run attract more of the right kind of people to patronize his facilities than will any cheapening policy which brings in crowds of the unappreciative.

It should be clearly understood that the park is not in competition with other resorts; that the favorable provisions of the operators' contract fully offset the prohibitions on certain activities common to resorts outside the parks. The park atmosphere is the operators' best friend; but he may not recognize it.

Of course, it is hardly necessary to mention certain things that operators should not install, such as slot machines of various kinds, nickel- or dime-in-the-slot telescopes, or field glasses, and so forth. Perhaps the most difficult thing to regulate is curio sales. We must confess that much sold in Sequoia is atrocious. We should try to lead our visitors generally to better things.

In conclusion: to preserve the national park atmosphere we must curb the human desire to develop the parks quickly to compete in popularity with other commercial resorts, or even state or other parks or national forest areas. When a new project is proposed, the first question should be, "How will it affect the park atmosphere which we desire to maintain or restore?"

We have made a fine beginning in our educational work in the parks; and we should see to it that not only the ranger-naturalists (I still dislike the hybrid word) but all rangers and employees assist in maintaining park atmosphere and educating the park visitors to better and different things in the national parks. Often the things which adversely affect the atmosphere of a park have small and apparently innocent beginnings, but they may grow along unsuspected lines, so that constant vigilance is needed when any innovation is proposed either by park men or park operators.

We should boldly ask ourselves whether we want the national parks to duplicate the features and entertainments of other resorts, or whether we want them to stand for something distinct, and we hope better, in our national life.

We are a restless people, mechanically minded, and proud of doing constructive work. Our factories, railroads, roads, and buildings are admired by the world. We have in the parks a host of technicians, each anxious to leave his mark. But in all this energy and ambition there is danger unless all plans are subordinated to that atmosphere which though unseen, is no less surely felt by all who visit those eternal masterpieces of the Great Architect which we little men are temporarily protecting.

The Grand Teton Extension

STRUTHERS BURT, Southern Pines, N. C., and Moran, Wyo.

IT has been several years since I was in close touch with the proposed extension of the Grand Teton National Park in Jackson Hole, Wyoming, or, as it is often called (but wrongly, for the idea was a native one, originating shortly after the war with a group of Jackson Hole citizens), the Rockefeller Plan. Mr. Rockefeller did not originate the plan, nor did the National Park Service; merely, with the broad and national vision to which in him we are accustomed, Mr. Rockefeller saw the virtues of the plan, and undertook it. He did not realize at the time, nor did anyone else, how much patience and forbearance would be required from him, and from all those in favor of the plan, nor how motives and acts would be misunderstood and even libeled.

In this misunderstanding and abuse ignorance has played a large part, but self-interest and lack of vision have also had their share.

Now, once again, I am asked to re-state my opinions, and, once again, after investigating all that has happened since I took an active share in the project, I see nothing to change in the least my original opinions. I still believe without qualifications that the extension of the Grand Teton National Park is the only way in which the Jackson Hole country can be preserved for its proper uses and for the Nation as a whole, and the only way in which the valley can progress along rational lines both materially and in those paths of conservation that nowadays every intelligent American, however much he may disagree with this particular plan or that, sees are necessary. Otherwise Jackson Hole will always remain open to spoliation.

As my authority for venturing to speak again, I submit these claims. I was one of the original small group of Jackson Hole citizens—cattle men, tourist men, businessmen and newspapermen—who in the early 'twenties first formulated the plan. I was one of the men who had to do with the setting aside of the present Grand Teton National Park. By the merest chance and good fortune I happened to be the particular man, although indirectly, who first interested Mr. Rockefeller in the plan. And for a number of years I fought for the plan actively and continuously. But possibly these further claims will carry more weight.

For twenty-eight years I have been a citizen of the State of Wyoming and a resident of Jackson Hole. I am interested in both the tourist and cattle business there, and I hasten to add that the cattle ranch in which I am interested is not within the proposed boundaries of the extension and that therefore, if the cattle interests of the country are hurt, which they will not be, I will be hurt too. Whatever the exigencies of a writer's life may be to take him away from the place he calls home, Jackson Hole will always be my home and the State of Wyoming has no more loyal and jealous citizen than I, or one in closer touch with what is going on.

My motives, I think, can not be impugned; my information has at least been gathered on the ground.

And now, before I come to the detailed objections to the plan, I would like to make a few general statements.

Jackson Hole is not like most other countries. It is not only one of the most famous valleys in the world but also one of the most beautiful. It is, and is becoming increasingly, a Mecca for travel, a focal point. This is heightened by the fact that in addition to its own attractions it is also the southern entrance to Yellowstone Park. Every year thousands of people pour into Jackson Hole, and every year their number increases. How are you going to handle them, and what are you going to do with them? And above all, how are you going to handle the people who cater to them? The gas stations, the hotels, the stores; the dump heaps, automobile graveyards, road signs and saloons? Do you want another West Yellowstone? Or another Estes Park? Or another Lincoln Highway? Every tourist man knows that you cannot turn tourists loose; too many tourists believe that they are the only people who are ever going through a country and that once they leave it, it makes no difference what they leave behind. And every tourist man knows that you cannot turn loose the people who cater to tourists. Furthermore, most people should know that every virtue overdone becomes a vice, and that good fortune unguarded and uncontrolled in the end defeats its own purpose and kills itself through its own careless impetus.

Jackson Hole has been presented with a magnificent Golden Goose in the shape of its scenery. A Golden Goose that will live forever if kept clean and not worked too hard; that is, unless it is killed by the stupidity of some of the Jackson Hole residents and the ignorance of the rest of the State.

But in addition to the difficulties which the fame and beauty of the country present are those due to the valley's shape and size.

Jackson Hole is in reality an extremely small country. It isn't even a valley; it is a "Hole" surrounded by immense mountains. It isn't a big country like the Cody, or Sheridan, or Wind River countries. It doesn't open up. You can't loose atrocities either in its foreground or on its horizon. One of the factors that first moved the little group of citizens who formulated the Jackson Hole Plan was the knowledge that, from the town of Jackson north, you either treated the valley as a whole or not at all. The present Grand Teton National Park, unless its approaches are guarded well, before long, resemble the famous jewel in the head of a toad. There is not a vantage place in the northern end of the valley, that is, from the Jackson Buttes north, from which you cannot see clearly almost everything in the valley. To say, as some of the opponents of the plan say, that the country on the east side of the Snake River is merely sage-brush flats and of no park value, is to say that a picture does not need a frame.

Jackson Hole is the neck of a bottle, and the wine will go bad if the neck is clogged or fouled. Moreover, it is not merely a question of preserving and putting to future good use the Teton Mountains alone. The intelligent tourists—and every year there are more of them—come to see the country as a whole; to stay in it, to fish in it, to ride around in it. The question, therefore, becomes one of properly segregated, and not too numerous camps, of properly controlled centers of trade; of forests left alone as much as possible, of open country unspoiled, and of roads built no more than is absolutely necessary.

What other agency can accomplish these results except the National Park Service? The Biological Survey cannot. Its functions do not embrace such purposes. The Forest Service, with all due respect to a magnificent bureau, cannot either. With the best intentions in the world it is fundamentally "a use bureau," and however it may try cannot get that out of its head. I have seen its "Primitive Areas" and its "Recreational Areas," and I have yet to see one of either administered with simon pure intent. I can take the Forest Service to any number of wild and isolated beauty spots in the Rocky Mountains and show them where even tin cans, newspapers and camp fires are not cleaned up. I am not blaming the Forest Service. It is a magnificent bureau, as I have said. It simply has too much to do and its viewpoints are of necessity too varied.

That leaves only the State of Wyoming to handle the situation. No one can have any objection to a State Park, after the examples of New York, Pennsylvania, and so on, but Wyoming has no machinery for State Parks and not the slightest intention of setting up such machinery.

Anyone who has followed the history of Jackson Hole carefully from the end of the war, and the entrance of the automobile, down to the present, knows the constant dangers to which the country has been subjected and what has actually taken place since Mr. Rockefeller bought the 40,000 acres of land, ninety-five-per cent useless except for scenic purposes, which he now owns. Hardly a year has passed free from these outside attacks, ranging all the way from storage of waters for regions hundreds of miles away, to the setting up of get-rich-quick irrigation schemes on land that even if watered would not support a jack-rabbit. The smallest and mildest of these ventures was a rash of homesteading in the middle 'twenties on the part of largely alien and non-resident homesteaders who took up the useless lands in the northern end of the valley, strung wire fences that fell down and were not rebuilt, and waited for an increase in values. This increase in values came with the advent of Mr. Rockefeller. As I have said, not five per cent of the land he bought is of the slightest use except for park and scenic purposes.

Outside of its fame, its beauty, its narrowness and its smallness, this must also always be remembered about Jackson Hole: it is a curious country geologically. Despite its smallness—it is only some 60 miles long—the southern end of the valley is entirely different

from the northern end. Roughly speaking, south of the line of the Gros Ventre River, Jackson Hole is a fairly good small ranch and winter cattle country; north of the Gros Ventre River there aren't half a dozen pieces of land worth taking up. The soil toward the north, save at the mouths of two or three of the small forks that run into the Snake, is almost entirely river-wash of the lightest kind. You can't even grow alfalfa on it. If you turned the Snake River on it, within a mile you would lose the river. It is this land, and this only, that Mr. Rockefeller, where it was privately owned, has bought, and there is not the slightest intention of interfering with the southern end of the valley.

Indeed, as would naturally happen, the values in the southern end of the valley have been enhanced—enhanced by the segregation of the bad from the good; by the narrowing of the land that can be bought; and by the fact that the cattlemen—there are about a dozen good cattle ranches down there—now have a much less crowded range and can drift their cattle in the spring and fall to the mountain pastures instead of having to drive them.

Anyone who knows the Jackson Hole range knows what has happened to it since Mr. Rockefeller began to buy. The grass is now up to a horse's shoulders; the wild flowers have come back, a sure sign of a reviving range. The range looks now the way the original range of the West looked before it was ruined by over-grazing. Nor were these cattle that are now off the range of any value to their owners or the community. They were tiny bunches belonging to half-starving homesteaders.

What has happened is that the solid citizens are left, and the debtors had their debts paid by Mr. Rockefeller. During the depression Jackson Hole and its bank were solid as rocks. No wonder.

Before these purchases were made, Jackson Hole was well on the way to destruction. Now the removal in the northern end of the valley of deserted cabins, of down wire fences, of nuisances of all kinds, and the care taken of the ranches still in use, has made the country clean and beautiful once again.

Abused and mishandled country injures every value in it, no matter how remote those values may seem from the abuse. If the chief value of a country lies in its appeal to visitors and tourists, cleanliness and beauty are vital; also the intelligence which, without retarding the country's natural advance, keeps that advance along those lines which first brought visitors to it. Intelligent tourists do not travel 2,000 miles or so by car or train to see another Coney Island.

With this we can come to the objections of those who oppose the extension.

Categorically the objections are these:

1. The question of reimbursing the county for the direct land taxes that will be lost through the proposed addition to the Park.

2. The objections of conservational purists to the inclusion of Jackson Lake, and Emma Matilda and Two Ocean lakes, because of man-made dams already erected on them.

3. The placing within the park boundaries of the entire northern floor of the valley, thus controlling commercial access to the western slopes of the Teton National Forest.

4. The management of the Southern Elk Herd.

5. The desire of a number of people to take up the shores of the three lakes in question for summer bungalows.

The last is hardly a legitimate objection and is seldom openly mentioned although a very strongly held objection in certain quarters. If private ownership is allowed on these lakes, then the public will eventually have little access to them, and their present value to the State, the Nation, and the community will be largely lost. At present there is no private ownership on Emma Matilda or Two Ocean lakes at all. They lie in a beautiful, unspoiled forest country to be enjoyed by everyone. The Far West is not the East. We haven't myriad lakes strung close together as in the Adirondacks or Minnesota. We have few lakes, and they should be kept as much as possible for the States and the Nation as a whole, and as much as possible in their original state for the benefit and pleasure of the thousands who wish to see them that way. Before Mr. Rockefeller made his purchases, there was hardly a mile of the Snake River in the northern end of the valley open to public fishing.

Taking up objection number one, it is true, of course, that the county will lose some taxes if the proposed extension goes through. These taxes, unless I have been misinformed, amount to about \$12,000 a year, and although efforts have been made to get Congress to appropriate a sum to take care of these taxes, Congress has not so far assented and is not likely to do so. But even if Congress doesn't, I for one have little fear for the future of Teton County.

To begin with, of the \$12,000 annually the county was supposed to take in from the northern end of the valley, not over one third was ever actually paid. Most of the \$12,000 consisted, very naturally, considering the kind of country it was and the quality of a good many of the now paid-off settlers, of delinquent taxes—delinquent taxes on land so poor that the county did not dare take it over.

In 1935 while the country was still to some extent suffering from the depression, the New England States took in the enormous sum of \$500,000,000 from tourists. For the first three months of 1937 visitors to Cuba expended \$6,500,000. This was almost a million and a half more than for the same period in 1936. One fourteenth of the total population of the United States, or 9,929,432 persons, visited the 134 National Parks and Monuments in 1936, a gain of more than two million over 1935. The Governor of Hawaii has just reported the tourist business as Hawaii's third industry. It is now also the third or fourth industry of

an increasing number of States. Last year 431,192 people visited Yellowstone Park and 125,000 Grand Teton. These are only a few tourist figures, set down at random. In all honesty I do not think Teton County need worry much about its possible loss of approximately \$12,000 worth of taxes, most of them delinquent.

As to the question of game, I think that is not a very valid argument either. As I understand it, the Biological Survey will still control under any circumstances its Winter Elk Ranch near Jackson, and as for the rest of it, the Park Service will have direct control of the elk only on their spring and autumn drifts along the floor of the valley from Jackson to Buffalo Fork and Pacific Creek, and the other way about, and that will be a very good thing.

Fourthly, the fear that if the entire northern floor of the valley is under National Park Service control commercial access to the adjacent National Forest will be restricted or prevented, has no basis in precedent or the past point-of-view of the Park Service. When has the Park Service prevented legitimate or necessary access? To think otherwise is to doubt, it seems to me, the good faith and sense of a fine, intelligent bureau.

Finally, the objections of the conservational purists to the inclusion of Jackson Lake and Emma Matilda and Two Ocean lakes because these lakes already have dams on them, seems to me to fall under the heading of the last objection. Everything in life comes down eventually to common sense, or, at least, it should. I admit that very often it doesn't. There is, to be sure, a large man-made dam at the outlet of Jackson Lake and nothing can be done about it, but I do not see why this dam should become a precedent if it is distinctly stated that it shall not become one. Every day judges are handing down decisions; some become precedents, some don't. It depends upon whether they would make good precedents or not. And as to the dams on Emma Matilda and Two Ocean lakes, they amount to nothing. Beavers could do better. If left unused, within a year or two these dams would be forgotten and these two lovely small lakes would be restored completely to their natural state. I live right near both of them and see them at least once or twice a week. If the two small dams on Emma Matilda and Two Ocean establish under the proposed extension any precedent, it will be the precedent that Idaho sugar companies shouldn't try to steal Wyoming water. Someone has been fooling the conservational purists. And I wish that all of them—the conservational purists—would come out for a while and live in Jackson Hole.

Back of all the debate and rigmarole there is only one vital question: the future of Jackson Hole. Who is going to save it? Public-minded private citizens have tried in the past and failed. They weren't powerful enough. The Forest Service has tried and failed. It isn't adapted for such purposes. The Biological Survey can't try. Neither can the State of Wyoming. All right! Who's going to?

Do These Areas Merit National Park Status?

A SYMPOSIUM

EDITOR'S NOTE—In the 20th Anniversary National Park Supplement, issued in December, 1936, with *Planning and Civic Comment*, we advocated a sound program of acquisition of national parks, based on the recommendations contained in the report of the Committee on Recreation to the National Resources Committee. Some of the areas which meet all qualifications for national parks have passed into state or private ownership. Others are yet unappropriated public lands and still others have been assigned during recent years to the custody of the U. S. Forest Service. Now that we have a well-established National Park Service, a balanced land-use program would assign to that Service all extensive federally owned areas of national importance which manifestly should be preserved as national parks for scenic and inspirational purposes. Archeological, historic and scientific areas are also being assigned to the National Park Service, mostly as national monuments.

We present here accounts of preliminary examinations of eight areas.

THE KINGS RIVER COUNTRY

W. H. HORNING, Forester, National Park Service

IN ATTEMPTING to answer the question, "Should Kings Canyon be a National Park?" it is desirable to consider a few points of the historic background of this long-standing proposal. In addition, one must consider various economic factors that in recent years have deferred consideration of this park project by the Congress.

The Kings River area was at one time included in a proposed extension of Sequoia National Park. Now, however, with the prospective opening of the area by a very costly state highway, leading from General Grant National Park into the Kings Canyon, it is desired as a separate park, to be administered in conjunction with General Grant National Park.

The proposal in 1928 to add this area to Sequoia National Park met with very strong opposition from power interests that had made power development surveys. As a result of the controversy over the issue, Congress decided that it needed more exact information before deciding whether or not to place the area in a national park. In order to obtain the desired information it authorized a special power survey by the Federal Power Commission. This survey was completed and its results were published, but thus far all efforts again to bring the park proposal before Congress for a further review of the facts have been unsuccessful.

During the intervening years significant changes have occurred in the production of power. The development of vast supplies of cheaper power in other areas; the discovery of almost unlimited supplies of petroleum and natural gas; and the greatly increased efficiency of steam power have all tended to make the development of hydro-electric power from Kings River economically more and more doubtful. It is believed, therefore, that commercial power interests no longer consider the possible power sites on the Middle and South Forks of the Kings River to be of great value.

Water is of vital importance to the agricultural sections of the San Joaquin Valley. Semi-desert valleys have been made as fruitful as the Garden of Eden. The dense population in flourishing towns and cities, with all the accoutrements of modern civilization, has grown up in these bountiful valleys. Banking institutions, department stores, libraries, schools, colleges, and all the rest, are there. Civic and business leaders are keenly aware that the whole complicated structure is absolutely dependent on cheap water and cheap power. If water supplies fail or become too costly in proportion to crop values, the once verdant orchards and vineyards perish of thirst and lift their leafless limbs to heaven in piteous appeal for relief from the blazing drought. All too soon the area reverts to the desert cactus and thorn.

Visions of such a fate befalling the groves and gardens which men have spent a whole lifetime creating and tending, brings dread to their hearts and desperate planning to guard against such a calamity.

Great quantities of water are handled and delivered by pumps in the Kings River irrigation districts. Consequently, the power requirements are very large. The water must be supplied at low cost or not at all. Abundant and cheap power is, therefore, a very important factor in the whole agricultural economy.

The use of the energy of falling water to develop electric power is popularly thought to be the cheapest possible means of obtaining power. In some cases this assumption is correct, but in other cases, the large investments in dams, tunnels, long transmission lines, and stand-by engine power stations result in relatively high-priced electricity.

A study of the costs of electricity in the Kings River irrigation districts indicates that there is little, if any, prospect of economic need for power which can be developed within the proposed park area. This view is supported by opinions of expert engineers who have studied the problem and are familiar with its details.

At present, and for many years to come, abundant and cheap supplies of natural gas and petroleum fuel will permit the development of cheap electricity with very much lower investments than are required for waterpower development. In addition, there is now available power from the Boulder Dam and there is the prospect of the Great Central Valley Project, which would develop enormous quantities of power at relatively low cost.

In the immediate vicinity of the Kings River Irrigation Districts and just outside the proposed park, there is a great block of potential hydroelectric power which can be developed as soon as regulating storage is built on the main channel of Kings River. It is estimated that up to 500,000 horsepower of electricity can be developed on the North Fork of the Kings River. All of this can be developed more economically than any of the potential power of the portions of the Middle and South Forks that are included in the proposed park. The principal factor which has

prevented development of this power in the past has been the opposition of irrigation interests. Their opposition was due to the fact that the great volume of water storage required to develop this power would seriously interfere with the normal use of the water for irrigation purposes. Because the water would have to be stored during the season of greatest irrigation need and released after that need had passed, the only power development permitted was one 44,000 Horse Power Unit that uses only the normal flow of the stream without any storage. When that unit was installed, the company owning it was foresighted enough to construct its tunnels with four times the capacity required to supply the one unit. As soon as regulating water storage is provided on the main channel of the river, the objection to power development on the North Fork will be removed. This means that 132,000 additional horsepower can be developed almost immediately and at low cost because a great deal of the installation cost has already been incurred.

There is a very good site available on the main stream for regulating storage at a point known as Pine Flat. A storage reservoir for 200,000 to 500,000 acre feet of water can be economically constructed at that point and early construction of the reservoir is being seriously considered at the present time. Because of the large amount of cheap power which can be supplied from probable developments in the North Fork after the Pine Flat reservoir is constructed, there seems little justification for high-cost projects within the proposed park area.

Certain organized sportsmen have recently voiced their opposition to the park project, on the grounds that it would deprive them of valuable deer hunting territory.

The Kings Canyon region has always been a very inaccessible and difficult area to visit. To hunt there has been a difficult and costly undertaking. Millions of acres of easier and more productive hunting territory have been available on all sides. Most hunters have preferred these more accessible areas because they do not require a large outlay for pack animals, saddle horses and guides. Only the fortunate few who could afford such luxuries have hunted in the area of the proposed park. Data released by the U. S. Forest Service showing the locations in which deer were killed in the 1936 hunting season showed that less than 50 deer were killed in the entire area of the proposed park.

A national park, just as any other well-managed wildlife sanctuary, produces an abundant stock of vigorous game animals in the surrounding unprotected territory, thereby improving the hunting. It requires little stretch of the imagination to foresee an overflow of far more than 50 deer from its boundaries into the surrounding hunting territory.

Grazing is the concern of another group of interests who have expressed their disapproval of the proposed park. From the earliest days when John Muir and others of the Sierra Club recognized the marvelous scenic features of the Kings Canyon region and began urging it as a park,

certain stockmen have been active in opposing it. With the passing of the years, their viewpoint has changed somewhat as a result of changing circumstances. The once abundant forage soon became seriously depleted as a result of excessive grazing so that the range was able to support fewer and fewer animals. Under Forest Service administration more careful attention in recent years has been paid to grazing and to watershed protection. Grazing gradually has been curtailed and completely withdrawn from much of the area already, and further reduction is planned.

One reason for this curtailment policy has been the obvious necessity of permitting the watersheds to revegetate. Another reason has been the growing realization that recreational use should have precedence over grazing on an area of such outstanding scenic quality. Recreational use of this area has involved the employment of pack and saddle horses by hunters, fishermen and sightseers, and it is now felt by the Forest Service that most of the grass and other forage should be reserved for their convenience.

The past grazing of domestic livestock in the Kings River high country has had several very undesirable consequences. The destruction of soil-binding plant cover has accelerated erosion and the water-storage capacity of the watersheds has been diminished. These results undoubtedly have been much more important in their effects upon irrigation water supplies than has been realized generally.

From the standpoint of restoration and conservation of vegetative cover and conservation of the watershed itself, the national park as a form of land use has important advantages. It furnishes permanent and complete protection of watersheds that are vitally important for irrigation and flood-control purposes.

A natural question is, why do the stockmen continue to oppose the Kings Canyon park project if grazing has already been withdrawn from the area by the Forest Service? In answer it may be said that a limited amount of grazing is still permitted in a portion of the area, and, while the area continues in a national forest, there is the possibility that regulations may be modified to permit more grazing in the future.

The timber in the proposed park is of insignificant value. While beautiful stretches of forest exist here and there, they are so located that they never can be marketed. Difficulty of topography, the scattered nature of the forest, and the long transportation distances all combine to produce a situation in which the timber can never be considered economically available. The lumber industry therefore is not particularly concerned with the proposed park.

Commercially valuable minerals are practically non-existent in the Kings Canyon region. The only known mining claim in the entire area is in the Tehipite valley and just outside the proposed boundary.

The approaching completion of the new state highway to Kings

Canyon will compel an early decision on the issue of administrative jurisdiction. Which agency of the Government should handle recreational use of such an area? Should it be the function of the National Park Service or the function of the U. S. Forest Service to administer the forms of recreational use which are appropriate for this area? The development and administration of recreational use on areas of superlative inspirational character has long been considered the special function of the National Park Service. The special function of the Forest Service, on the other hand, has been the administration of forests intended for the production of crops. Recreational use of the national forests has been incidental and, until recent years, has received an incidental type of administration. Camp grounds and other recreational facilities when provided on the national forests were partially justified as a measure to protect the forests from fires which were liable to originate from indiscriminate and unregulated camping. Recreational use of the Kings River area thus far has received this incidental type of administration.

Recently the Forest Service has come to regard recreational administration as one of its major functions and the unusual possibilities for recreational development in the Kings River area have been more fully recognized. Intensive studies have been made by the Forest Service and elaborate plans for recreational use have been prepared. Park Service methods of providing for the recreational use of similar areas have been studied and, so far as the area proposed for the park is concerned, the facilities and type of administration planned are very similar to the corresponding features of a Park Service plan. To develop the area as a national park under Forest Service jurisdiction would be sheer duplication of another bureau's authorized functions and would not guarantee that the area would be preserved from destructive commercial uses.

The Forest Service has announced the details of a Multiple Use program for the development of the Kings River area and adjacent territory. It should be noted, however, that the Forest Service plan would be multiple in character chiefly with respect to areas outside the proposed park. In certain parts of the outside area, as at Hume Lake near General Grant Park, summer home sites will be leased and, in most of the outside area, grazing will be continued. Timber cutting will be permitted on portions of the adjacent lands. Hunting, of course, is not prohibited. In the proposed park area itself, summer home site leases are not offered by the Forest Service and very little of it will be open to grazing, but it is worthy of note that either of these restrictions can be removed, upon short notice, by the Regional Forester without consulting Congress or the wishes of the general public.

The national park plan, on the other hand, offers more complete protection of the watersheds and their vegetative cover. The complete protection afforded to wildlife will indirectly result in enough gain to the game supply of the surrounding territory to more than compensate for

the immediate losses to hunting. Fishing will be unrestricted and fully as good if not better than on the National Forest. The National Park Service has had wider experience in the administration of the forms of recreation which are appropriate in such an area. Last but not least, the national park plan provides a definite and permanent policy of management as laid down by Congress. This policy, which is well suited to the area in question, cannot be modified to suit the whims of administrative expediency. It cannot be compromised on short notice to suit the demands of organized minorities.

A national park will be a sound and wise form of land use for the Kings River area. It will provide much benefit and enjoyment for many people in all parts of the country and, incidentally, will bring permanent business benefits to all interests rather than to any one class.

MOUNT OLYMPUS—NATIONAL PARK OR MONUMENT?

OWEN A. TOMLINSON, Superintendent, Mount Rainier National Park
and in Charge Mount Olympus National Monument

UPON the Olympic Peninsula, that triangular section of the State of Washington bounded on the west by the Pacific Ocean, on the north by the Strait of Juan de Fuca, and on the east by Puget Sound, lies the Mount Olympus National Monument, an extraordinary beauty spot of scenic and educational content.

This section, one of America's last primeval forest areas, unlike any now found in the National Park system, includes distinctive mountainous and wooded terrain, typical northwest wildlife, a wide variety of flowers and shrubs, and, finally, strange geographic and physiographic formations. It is the object of an intended National Park.

The great attraction of the Olympic wilderness lies in its irregularly located rough-hewn mountains, rising out of the jungle-like forests of the Olympic Peninsula. Burdened with glistening and still active glaciers, never completely explored, the snowy white of the taller peaks contrasts with the luxuriant verdure of their evergreen slopes. The region surpasses in massive grandeur many more famous but less beautiful tourist territories. Peaks 6,000 and 7,000 feet in height, by no means comparable to the single, lofty 14,408-foot altitude of Mount Rainier, nevertheless present an equally spectacular appearance because of their vast array. Molded by glaciation in a period approximated at some 20,000 years ago, the resultant spectacular topography is a marvel of distinctive, rugged, and isolated domain, with many peaks unnamed and unclimbed. Unofficial count places the number of glaciers in the Olympics around fifty, all emanating from peaks snowcapped throughout the year. While being made accessible to people, this great wilderness should, and can, be preserved in its natural rugged condition.

Together with its awe-inspiring crags, the monument and surrounding

territory offer to nature-lovers excellently preserved tracts of the massive Sitka spruce, greatest of all known spruce species. This tree, common to northwest territories, equals in beauty even the Sequoia and giant Redwood, by virtue of its environment and ready companionship with other coniferous species. Centuries old and approaching 300 feet in height, magnificent in its foliage, and rising from tropic-like undergrowth, it is an excellent example of the once virgin forests known to our forefathers.

National and state parks protect the Sequoia and Redwood districts but no assurance has been given that the Sitka spruce, one of our greatest tree species, growing in the last available frontier, will be retained at its best for the inspiration of future generations. This species is not entirely monarch of its domain. Among its forest associates are the equally great Douglas fir, Western red cedar, and the smaller white fir and hemlock, with age-old coatings of moss, hanging heavily to soften the solid contours of branches. Heavy tropic-like vegetation—the forest within a forest—disappears miraculously, leaving only huge trunked forest monarchs, then as suddenly reappears. Elsewhere, ferns carpet the trail and the forest floor. Heavy-reeded waterways break suddenly into broad, pebbled expanses. And, perhaps, if there are no man-made trails, a hoof-marked path will denote the daily presence of deer or elk.—

In contrast to older countries, America still retains various sections of native wildlife regions, but none, perhaps, that compare with the relatively primitive habitats of the Olympic Peninsula. Here untouched regions provide an excellent opportunity for retention of distinctive northwest animal life.

The Roosevelt elk, largest and finest variety, is present in large numbers. Considered the only practical region in the United States in which to preserve large herds of this magnificent animal, it is obvious that protection is needed. Also present are the black-tailed deer and American black bear, still found in considerable numbers despite past relentless hunting. Smaller animals, already facing extinction, are the otter, mink, martin and fisher. These, once plentiful, have been reduced drastically, but there are hopes that the retention of a large area will restore their number through natural benefits.

Mountains, trees and luxuriant undergrowths are not all that is offered by this remarkable area. Rivers and streams, now wide and slow flowing, now turbulent, offer varied interests and beauty. The song of mountain water is a persistent voice in the stillness of the primeval forest, and the fisherman here can play his silent art without disappointment.

Lakes are numerous, some hidden in surrounding woods, and some caught higher in shallow basins of the open mountain terrain. In such a setting are the Seven Lakes in the cirque at the headwaters of the Soleduck River. At the other extreme, Lake Crescent, with its placid, cobalt waters, curves about the base of green forested mountains. Here



Mt. Magic from Cascade Pass in Northern Cascade Range
Photograph by Aubrey R. Watzek



Mt. Baker in the Northern Cascades
Photograph by Aubrey R. Watzek



Seattle Creek in Mount Olympus National Monument, looking toward Mt. Muncaster from the High Divide

Photograph by George A. Grant

Courtesy U. S. Department of the Interior

the Beardslee trout, found nowhere else in the United States, grows to unusual size in the deeper portions of the lake. Summer homes and resorts now fringe the lake shore, for it has long been famous for its beauty. Eventually these shores should be free for all the people, but that could be accomplished in due time without injustice to the present owners. The lake is within the northern extremity of the proposed park.

Health-giving mineral waters are found in the Sol Duc and Olympic Hot Springs, rapidly becoming famous as American health resorts. These hot mineral waters, which bubble continuously from springs at the base of and beyond the present monument, are considered by many people to be of greater value than a number of more famous spas.

Meteorologists find unusual climatic conditions. Contrasted with the light snowfall of the lowland areas, Mount Olympus, 7,915 feet high, has an estimated snowfall of 250 feet. Precipitation of more than 150 inches on the western slopes is contrasted with a scant 15 inches on the northeastern part of the Peninsula. Actually within 50 miles are found the heaviest rainfall in the United States and the driest area on the Pacific Coast, exclusive of Southern California. But visitors are assured at least three months of enjoyable weather, from July to September, and the great diversity of climatic and soil factors has produced a comparable diversity of fauna, flora, landscape, and the countless miracles of an organic Nature. Educationally, the region offers rich opportunities for the person who comes to play, but with an open mind.

Mount Olympus, according to the late Edmond S. Meany, dean of northwest historians, was the first geographical feature to be given a name by civilized men in Washington. The Spaniard, Juan Perez, exploring along the Pacific Coast in 1774, named this mountain Santa Rosalia on August 10 of that year. Later, in 1788, the Englishman, John Meares, declared the mountain "fit to be the home of the gods" and appropriately changed the first Spanish name to Mount Olympus.

I have tried to portray the Mount Olympus country as I have seen it and lived in it. I am confident that no one could so know it and thereafter wish to see it impaired in any way. There is no question that it belongs with the other national parks of the system. It is already publicly owned; it belongs to the people, but what use will they make of it? Congressman Wallgren, in proposing that it be established as a national park, does not propose that it be taken away from the people or that it be locked up, but merely that it be kept unspoiled, not for the benefit of any one industry or section, but for everyone.

THE PROPOSED BIG BEND NATIONAL PARK

HERBERT MAIER, Regional Officer, ECW Region Three, National Park Service

THE Big Bend country of Texas is that triangular portion in the southwestern part of the State inclosed by the big bend of the Rio Grande. The romance of the border frontier still lingers in this last wilderness of Texas. No railroad traverses it. Its few roads are largely makeshift, or improved wagon trails, serving its few ranches and mining claims. If consummated, this area will be the first national park in the Nation's largest State. Fittingly enough, the huge acreage lies wholly within the state's largest county—Brewster.

It is planned that the proposed Big Bend National Park, as authorized by Congress in 1935, to comprise 788,000 acres, be linked by bridge across the Rio Grande with a 400,000-acre national park which the Mexican Government is taking steps to establish in the States of Chihuahua and Coahuila. The two will form the Big Bend International Park, the proposed boundaries of each area having been determined by a commission representing the two governments.

The native elements of the Big Bend area which qualify it for national park status are varied; and few, if any, of its qualities duplicate anything already existing in the National Park system. It is, first of all, the outstanding example of U. S.—Mexican border scenery. Secondly, the Chisos (ghost) Mountains, as the central dominating element of the region, form a biological unit rare in occurrence. There is quoted from the Committee of Investigation's report to the Director, Sept. 9, 1935:

The establishment of the Big Bend National Park gives the Service its first opportunity to set up a boundary that will protect a logical and complete biological unit. The Chisos Mountains, while small in area, will, in their entirety, be within the national park, the first time any complete mountain range has been protected. The area included in the boundary recommended contains the most comprehensive list of geological phenomena found in any one area of a similar size in the United States.

The Chisos Mountains range from low, semi-desert slopes to high, wooded canyons and peaks. Between the 3,000- and 8,000-foot elevations are found the Lower and Upper Sonoran Zones, the Transition, and an indication of the Canadian Zone. Surrounded on all sides by semi-desert, these mountains comprise a most interesting "island" with forest trees and associate species of flora and fauna many miles removed from types of similar character. The value of the fauna and flora of the region lies not only in their varied type but in the fact that many of their components cannot be duplicated in any other sections of the United States. Many species of animals and plants, whose center of abundance lies in Mexico, range north to the Big Bend, while others are related to Rocky Mountain forms.

This region of Texas has representatives of over 60 species of mam-

mals. Among the larger game animals are three species of deer, bear, lion and peccary. Bighorn sheep and antelope, formerly abundant here but now extinct, could be reintroduced. Under proper protection, the buffer area surrounding the Chisos should gradually come back as a most productive antelope range. Over 200 species of birds have been noted.

While semi-arid in climate, the wildlife capacity of the range when reestablished through national park protection methods will probably be greater per acre than that of the Yellowstone with its heavy lodgepole forests. Furthermore, the more open type of country in the Big Bend will afford the visitor a greater opportunity to observe wild animals. Up to the present the area has been wantonly overgrazed. Few regions in the United States afford such an opportunity for demonstration of reversion to proper land usage.

Perhaps the feature of most spectacular interest after the Chisos Range is the Rio Grande itself which, in its tortuous course, cuts through three steep-walled limestone canyons, about 2,000 feet in depth—the Santa Helena, the Mariscal and the Boquillas—and meanders over flat river plains between.

The water in the Big Bend area is limited. Aside from the Rio Grande there are practically no permanent bodies of water. Certain pools fed by surface waters, however, such as in Cat Tail Canyon, are constantly full. Sufficient and potable water for serving the public, if this is to become a major recreational area, may be obtained in ample quantities by surface drainage at points where utility and public service units may be established. At present a CCC camp of 250 men is amply supplied by a surface well.

The climate of the region is, in general, mild. The average rainfall in the surrounding lowlands does not exceed 15 inches. Rainfall in the mountains is greater and is sufficient to support a good tree growth. No official record for snowfall in the mountains is obtainable but what snow there is disappears in a few days. The international area, as a park, would have all-year use.

The romance of old frontier Mexico is in the atmosphere of the Big Bend region. In the Chisos Mountains the visitor is continually aware of its presence. The outstanding views in three directions carry the eye over into the mountains of Old Mexico. From the South Rim of the Chisos the eye obtains the climax of popular interest. Here the mountains fall away to the Rio Grande nearly 5,000 feet below, affording a panorama of 360 miles from east to west with the mountains of Old Mexico in the distant background. This is perhaps one of the most stupendous panoramas in the continental United States.

The first committee to consider the international phases was appointed in November, 1935. In February, 1936, international representatives of both governments met in the region and outlined tentative boundaries for both areas. The recommendations were crystallized at a

conference at El Paso in November, 1936. In the previous summer, Secretary of the Interior Harold L. Ickes appointed a commission, headed by Director Arno B. Cammerer, to visit Mexico City with an eye to solidifying the coöperation of the Departamento Forestal y de Caza y Pesca, under which the national parks of Mexico are administered, and to make a tour of inspection of some of its principal areas.

The proposed Mexican area of approximately 400,000 acres, which is similar in scenic standard to that of the American side, would consist principally of the Del Carmen and Fronteriza Mountains which attain an altitude of 10,000 feet, the eastern slopes of which are heavily wooded with pine forests. A strip of land five miles in depth would also skirt the Rio Grande opposite the American side, to the west, so that both sides of the three canyons would be included. The western and eastern boundaries of both areas would join at common points on the international boundary.

Investigation has shown that it should not be too difficult a task to build later a road from the Mexican area to join with the main Mexico City Highway at Monterey. Who knows but that this international park may some day very fittingly become the great tourist gateway to Mexico proper.

General plans for the development of each area have at the request of the Mexican Government been considered as a single problem. On the American side it is proposed that the main approach road from the north terminate at a tourist center to be located in the lower Chisos Mountains, with a system of horse-trails affording the only connection between this and the principal points of interest in the higher country. One branch of the approach road could lead to the southwest, terminating at the Santa Helena Canyon on the Rio Grande while another to the southeast could cross the Rio Grande at Boquillas. Thence the road could skirt the base of the Del Carmen and Fronteriza ranges in the Mexican area to Canyon del Fresnos up through which access would be had to a principal tourist development. From the international bridge at Boquillas a road is proposed skirting the Rio Grande westward on the Mexican side and affording spectacular views down into the Mariscal and Santa Helena Canyons. Little more than a service road is planned along the American side of the river so that no artificial barrier will discourage a free flow of wildlife to and across the river. It is not planned to encircle the Chisos Mountains with a road system.

It is felt that everything should be done in developing the area to preserve for the tourist seeking rest and recreation the Spanish-Mexican atmosphere. In furtherance of this, an architecture for government and operators' buildings might well be based on Spanish-Mexican lines. The hacienda could be used as a prototype for a main tourist lodge while perhaps a few of the already existing native abodes along the river might be retained as minor tourist stopping places.



The Rio Grande as it emerges from the first canyon up the river from Boquillas, in the proposed Big Bend National Park

Photograph by George A. Grant
Courtesy U. S. Department of the Interior



The village of Boquillas, Texas, with the Sierra del Carmen and Shot Tower above it

Photograph by George A. Grant
Courtesy U. S. Department of the Interior

The international project, as characterized by Director Cammerer, is "a gesture toward international good will that might set an example to other nations." Undoubtedly such a major project would further the mutual understanding between the two nations. It would tend to solidify more securely the friendship that has been forming for some years. A vast playground of this sort, a *zona libre*, in which the tourist upon entering the gate of the park on either side would find himself free from all customs and immigration regulations so long as he stayed within its bounds, would create ties of kindly sentiment that would multiply and become stronger between the peoples of Mexico and the United States.

A Texas longhorn steer ranch of extensive acreage has been proposed for the area to preserve for historical purposes the era which was responsible, perhaps more than anything else, for the development of the meat industry in the western plains country. It is felt by some that it is as important to reestablish a herd of longhorns under their original conditions as it is to preserve the buffalo that roamed the plains before them. In addition to the historic value, the old spring and fall round-up and branding party would afford the keenest interest and value to many who visit this park. But this proposal involves a policy that demands further thought and investigation.

Approach to the Big Bend National Park would be from the north. The Bankhead Transcontinental Highway and the New Orleans-El Paso-Los Angeles Highway are within a few hours' drive. These carry the bulk of the winter tourist traffic from the east to California. The Southern Pacific Railroad between New Orleans and Los Angeles runs along the northerly base of the Big Bend triangle. The nearest national park, the Carlsbad Caverns, is 200 miles to the north by road.

Steps to carry out the authorization Congress voted in 1935 for establishment of the Big Bend National Park are being taken at the present session of the Texas Legislature. Of the 788,000 acres to be included in the Big Bend National Park, the State already has title to approximately 145,000 acres. The present session of the Texas Legislature has under consideration the appropriating of \$750,000 with which to start purchase of the remaining acreage. Though rich in scenic worth, the lands are of comparatively low economic value.

Practically all of the 400,000 acres to be included in the Mexican national park is in private ownership. The Mexican Government is taking steps to acquire this land largely through an exchange for government-owned acreage elsewhere.

THE NORTHERN CASCADES

HARLEAN JAMES, Executive Secretary, American Planning and Civic Association,
Washington, D. C.

CLOSE under the Canadian border in the State of Washington lie the Northern Cascades—a combination of granite and volcanic mountains, endowed with special characteristics of grandeur by reason of the extensive glaciers and snowfields which, seen from the high peaks along the Continental Divide, seem to stretch in endless vistas as far as the eye can penetrate. Nowhere in the much-higher Sierras or Rockies, so far as I know, can one *feel* so far away from signs of civilization. In the high country we saw no grazing cattle and no signs of habitation except for one lonely prospector whose years of prospecting had evidently brought little reward. The trails are narrow and have received some benefit from the hand of man, but certainly could not be called sophisticated or civilized. We caught only a few glimpses of goats, but saw many tracks. On the heights above Park Creek Pass we played hide-and-seek with a coy ptarmigan too trustful to retreat far from the strange human intruders, albeit ready to deceive them by taking conscious advantage of the protective camouflage of coloring given by an all-wise Providence to provide for this favored bird a granite-gray coat in summer with snow-white spots in winter.

We went into the mountains from the little settlement of Lucerne on the banks of the mountain-ringed Lake Chelan, riding the first afternoon twenty-one miles along Railroad Creek to Lake Lyman. In the crystal-clear waters of the lake, next day, we saw reflected the snow-capped peaks and hanging glaciers which surround it. There is one active mine on Railroad Creek, not far from Lucerne, but Lyman Lake, once reached, took us far from signs of human occupation. We met only hardy hikers, with very occasional horsemen and pack animals along the narrow, rough trail, which must often be scouted anew in the spring after the avalanches of the preceding winter have left huge tree trunks and debris when the snows which carried them down the mountain-sides have disappeared under the warm sunshine. We tried to ride from Lyman Lake to Buck Creek Pass on the Continental Divide, but found the trail blotted out by an avalanche and so we ended up on some highlands from which we had an excellent and inspiring view of the glistening white glacier and snowfield which crown Glacier Peak. As we reached the high green meadows of Cloudy Pass, we found such a profusion of blue gentians that we could well believe that the blue sky above had been fashioned into these lovely blossoms and scattered with a bountiful hand. From the heights here, as from many points along the Continental Divide, we could see a complete panorama around the full sweep of the horizon, of high white peaks, of jagged crests and hanging glaciers.

Along the Agnes Creek there were some fine waterfalls. We found

forest trees—the woody-trunked cedars rising straight and high, spreading their feathery fronds of green, tall silver firs, Engelmann spruces, brushy larches and graceful mountain hemlocks, filling the valleys with luxurious growth, but thinning into Alpine species until, above timberline, would be found the hardy white and pink heather clinging close to the rock-strewn mountain-sides and intervalles.

In the valleys were ferns, large and small, which seemed to form a fringe to reach the cedars and hemlocks above them. The hellebore raised its stately spikes above the ground-covers of mountain box and Oregon grape. There were tangles of devil's walking cane. On the background of many-shaded greens we found in August sprigs of pink, white and red paint-brush. The gaudy fireweed and yellow and red mimulus gave spots of color. We saw some columbine, a few campanulas and one chaste white clintonia in bloom. There were sedums and saxifrage enough to plant the rock-gardens of the gods, but let us hope that they will always be protected from the envious eyes of the ubiquitous artificial rock-garden makers! There were low white Alaska and red bush spireas and many small plants which we did not identify.

From our camp beside the rushing waters of Park Creek we climbed over a rocky, precipitous trail to Cascade Pass. Again we found a dramatic panorama of surpassing beauty and grandeur. Looking westward we could barely glimpse the wide Pacific—or thought we could—sixty miles away. The jagged skyline, dominated on the South by Mount Magic, yielded to our searching eyes a truly magical view. Distance lends to this long rocky-spined mountain a shadowy veil of unreality as though, looking through a frame of honest-to-goodness mountains of the Planet Earth, we could see into another world of infinite loveliness.

There is talk of a road to be built some day over this pass—a road not needed to connect points of origin and destination for any existing population—merely a road to penetrate the wilderness and so destroy it. For, where beauty is dependent on inaccessibility for its principal lure, the destructive machines of road building leaving their permanent scars and the succeeding swarms of human locusts destroy that which they would reveal. Recalling the beauty of those seashells which Emerson tried and failed to capture:

I wiped away the weeds and foam,
I fetched my sea-born treasures home;
But the poor, unsightly, noisome things
Had left their beauty on the shore,
With the sun and the sand and the wild uproar

it can surely be predicted that the wild beauty of the Cascade Pass will be transformed by a highway into merely a good view similar to hundreds of others which have been reduced by modern highways, hotels and impedimenta of civilization to damaged goods.

We climbed to one other vantage point on the Continental Divide—

Park Creek Pass. The Park Creek Valley is much more secluded and green than the rocky Cascade ascent and the mountains to the West are very awe-inspiring, but the Cascade Pass offers a climax of unspoiled scenery unmatched by any other which we saw.

Hermann Ulrichs, writing in the February, 1937, *Sierra Club Bulletin*, speaks of this Northern Cascade section of Washington as the "last great stronghold of almost completely untouched primeval wilderness in the United States," and believes "that it will be regarded as the most spectacular, varied and truly Alpine of all our mountains." This is the seasoned view of one who knows the Sierra with all their loveliness. According to Mr. Ulrichs:

Wherever the climber goes, he is sure to see in some direction, one, if not several, of these solitary sentinels, often floating like a vision or a mirage above the lower mists, strangely unreal and ethereal, and by their loftiness dwarfing the surrounding country. Though actually the youngest of our mountains, the impression given by their tranquil repose and ample flowing contours is that of great antiquity. Other mountains seem young and turbulent in comparison.

And again, speaking of the eastern slopes:

The crowning glory of the Cascades is, for me, the unusually extensive sub-alpine zone, which commonly begins above 5000 feet and makes a rich green fringe between the ultimate edge of the forest and the everlasting rock and snow. . . .

It would be hard to imagine a more striking and felicitous contrast than that between this idyllic, really Arcadian country, of intimate beauty and delicacy, and the almost savage ruggedness and grandeur of the big peaks, the deep valleys far below, and the magnificent panoramas of distant snowy ranges glowing in the soft light.

The country described here lies in the Chelan National Forest, in a proposed Glacier Peak Wilderness Area, south of what is now a North Cascade Primitive Area. Across the Skagit River to the West is the Mount Baker Recreation Area which is reached by a modern highway from the populated plain below—a highway last summer undergoing an almost fatal operation of widening and reconstruction, where we saw scores of giant cedars felled before the so-called improvements. Fortunately, Mount Baker itself still reigns supreme, untouched by highways, and Mount Shuksan, in the immediate foreground, is still a spectacular snow-capped sprawling crest.

Looking to the future of this miraculously protected area, we are bound to ask ourselves whether we can insure its continuance as a perpetual mountain wilderness. While we had the Yellowstone as early as 1871, until 1917 we had no agency of the Federal Government especially charged with the duty of finding and protecting areas of supreme natural beauty. Fortunately we had the U. S. Forest Service which was made custodian of the Federally owned standing forests and the high mountain country which went with them. The Forest Service has shown a fine spirit and has exercised great discretion in protecting the areas

above timber-line, though it has had its own fights, not all of them won, to resist the ravages caused by grazing of cattle and sheep in the Sierra and other high country.

Now that we have had the National Park Service for twenty years, charged by Congress with the responsibility of administering areas of scenic beauty, scientific interest and archeological value, it would seem that areas which come into this category should be under the custody of the Park Service, though most of us would agree that, within the classification of National Parks, there should be established differences of objectives and that certain areas should be specifically preserved free from over-exploitation by visitors. Mr. Ulrichs is right when he exclaims:

There is an indefinable bloom, a mysterious and haunting loveliness that lies over all country that has not known the hands and hoofs of the despoilers. How quickly it disappears before the loggers, the miners, the hunters, the shepherds, and the recreation experts!

Let us preserve this wilderness as a National Park held sacred from development before it is too late. Let us here, while it is yet possible, set up Congressional safeguards which can be made to hold if there is sufficient information and public opinion back of the law, to pass on to future generations the unscathed beauty of these really great mountains which past generations passed on to us!

ESCALANTE NATIONAL PARK PROJECT

MEREL S. SAGER, Park Planner, National Park Service

THROUGHOUT the United States there are few areas so little known, so inaccessible, and so fantastically beautiful as the Escalante country in southeastern Utah.

For our immediate purposes we chose to call the area "Escalante" in honor of Father Escalante who first explored the area in 1776.

For some time the National Park Service had been urged to investigate this vast wilderness, and particularly the canyons of the upper Colorado River, with a view to ascertaining the relative merits of the natural features for national park or monument purposes.

To obtain a fair conception of what was contained in this expanse of 6,000 square miles, extending roughly from Moab, Utah, to the point where the Colorado River crosses into Arizona, required a number of expeditions into various sections and finally observation by plane.

What did we find? Here was color, glorious color, 200 miles of countless, fantastic, weird monuments and pinnacles, limitless in variety of form, slowly yielding to the relentless forces of wind and water. Here was the mighty Colorado, mysterious, treacherous, forbidding, carving its meandering way through red sandstone canyons, so rugged that they have thus far successfully defied east and west commutation of human

kind in the whole of southeastern Utah. Here were desolation, solitude, and peace, bringing man once more to a vivid realization of the great forces of nature. We found the canyons of the upper Colorado to have spiritual and emotional appeal equal to that supplied by most of our national parks.

The canyons vary greatly in width. In places the walls rise vertically from the river itself, and in other places the upper escarpments are some twenty miles or more apart.

Except for favored alluvium along stream beds, the canyon areas are desolate and devoid of large vegetation. When these favored places do occur, as at the little ranch at Hite, by contrast they seem to possess inordinate comfort and tranquility—a haven in a severe, rugged country where the simplest amenities become luxuries.

The whole of southeastern Utah is rich in archeological interest. It appears that most of the important sites already have been excavated either by pot hunters or authorized research expeditions. Unquestionably there are some archeological features in the very inaccessible canyons which have not yet been tampered with. Pictographs are numerous and some, like those along the Colorado River below Moab, are well known because they can be easily reached. It would be futile as well as confusing to attempt to describe the multitude of natural features within this extensive area. A few regions come to mind as being distinct in one character or another, such as the inviting canyon below Moab with its vertical brown sandstone walls reflecting in the silt-laden water. With its good fishing, boating and accessibility from Moab, this is the only region in the entire area receiving more than a meager recreational use.

Labyrinth Canyon on the Green River is extremely meandering in character, with its highest escarpments set well back and taking the form of mesas and towers of great mass.

The region surrounding the confluence of the Green and Colorado rivers is such a maze of canyons that it is difficult from a distance to determine the location of the rivers.

Approximately four miles directly south of this junction is an area called the Needles, a galaxy of a million gray-topped formations of confusing complexity in many colors interspersed with patches of colossal mushrooms. Here also we found a most peculiar erosion of symmetrical rock the jointing of which, from the air, resembles a worn cobblestone pavement on some ancient highway of the gods.

Although the canyons of the Colorado are the chief attraction, there are some segregated areas commanding attention. The Goose Necks of the San Juan River, located five miles from Mexican Hat, have been impressive to all who have seen them. They are possibly the finest example of entrenched meanders in the country, interesting to the geologist and certainly spectacular to the layman.



Proposed Escalante National Monument—airplane view of the Needles formation north of the Blue Mountains

Photograph by George A. Grant
Courtesy U. S. Department of the Interior



Grand Guleh, rich in archeology, drains into the San Juan River northeast of the Navajo Mountains

Photograph by George A. Grant

Courtesy U. S. Department of the Interior

Arch Canyon, approximately 15 miles west of Blanding, Utah, at the head of Comb Wash and extending into La Sal National Forest, is a canyon of superb beauty, containing a multitude of interesting towers and pinnacles and with coloring reminding one of Bryce Canyon. Because of its inaccessibility it is little known, but it is one of the scenic jewels of the entire area.

Another segregated area possessing unusual scenic value, known as "The Towers," is located approximately 30 miles northeast of Moab, Utah. From a distance these red sandstone formations suggest the skyline of Manhattan, huge architectural towers with elaborately decorated façades. Some have dominant unbroken vertical lines of the modern skyscraper, while others resemble Gothic cathedrals with delicate carvings. They are different and distinct in a region where red sandstone pinnacles are common.

Although the Escalante area is rich in a variety and abundance of native fauna, establishment of a national park will insure needed protection to such interesting species as the mountain sheep and otter, which in this region are threatened with extinction. It is doubtful whether otter occur elsewhere in Utah at the present time. Mule deer, beaver, mink, and other game and fur-bearing mammals also inhabit the region.

The region is arid, very sparsely populated and little used except for the grazing of sheep and cattle. It is not good grazing range, for there is insufficient water, and continual overgrazing through the years has reduced the grass to a condition which requires a large area to keep a comparatively small number of cattle alive. Be this as it may, the revenue from sheep and cattle is the principal source of livelihood for the residents of southeastern Utah. For this reason, we eliminated all grazing land possible from suggested boundaries for a national park.

With reference to mineral resources, the country, rugged as it is, has been literally combed for minerals and nothing has been found in sufficient quantities to be profitable on a commercial basis.

With this great area constituting the original prospectus for investigation, obviously the big problem was to ascertain which areas could well be eliminated as not possessing features sufficiently unusual scenically or scientifically to justify their consideration for national park use.

The colorful canyons of the Colorado and Green rivers constitute the paramount scenic features in the entire area and they are, without doubt, of national park caliber.

It is the potential capacity of our national parks, with their inherent endowment, to supply spiritual values that distinguish them from the multitude of other recreational areas. The canyons of the Colorado possess this quality to a marked degree.

Regarding the actual need for steps being taken to preserve the area, one gets the impression on the ground that because of its sheer rugged-

ness it will preserve itself. However, our past experience should teach us that man's inherent, constitutional determination to vanquish primeval landscape is a force which has thus far never been shackled. Therefore, this area should be set aside for recreational use and the limits for its development definitely determined.

After careful study of the area, by specialists of several fields, the area recommended as being suitable for national park or monument status comprised about 2,000 square miles, or one-third of the area originally under investigation. The recommended tract does not include significant grazing land or, so far as it is known, important mineral resources, but it does include a number of potential power sites.

The drainage basin of the Colorado River covers 244,000 square miles, one thirteenth of the area of the United States, and is situated in seven States. The canyons of this river offer the second largest concentration of water power sites in the United States and the third largest on the continent. Its only superiors in this respect are the St. Lawrence and Columbia River basins.

As a conservation measure some years ago, the Federal Government withdrew all lands on either side of the Colorado River that were considered to be of potential value for future water power or irrigation development.

The U. S. Geological Survey has made studies of the river for many years, collecting information regarding flood control, water power, and irrigation. Thirteen dam sites on the Colorado and 28 alternate sites have been described in a comprehensive report "Water Power and Flood Control" published by the Survey in 1925. Two of these suggested dam sites would affect the Escalante area. One of them called Dark Canyon Dam Site is approximately in the center of the area and would impound water within a few miles of the town of Greenriver and beyond the town of Moab. The other, called Glen Canyon Dam Site, is located four miles above Lees Ferry and, although outside of the area, would impound water 148 miles above the Arizona-Utah line.

Power development in Escalante does not appear to be imminent because of the remoteness of the region, the lack of demand for additional power there, and because there are many other excellent dam sites which could be developed first. The possibility, however, of future power developments in the area must be weighed in attempting to determine its highest uses. If the area, with all of its scenic, prehistoric, and scientific values, is to be given over to power development, it should not be established as a national park or monument.

Regardless of the decision reached, the fact remains that Escalante possesses recreational and inspirational values of national importance which, under proper planning, should be preserved and enjoyed.

CAPE HATTERAS SEASHORE

CONRAD L. WIRTH, Assistant Director, National Park Service,
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WHEN the average American family says "Let's go to the seashore," its members have a clearly defined mental picture of what they will see and do. There will be the long drive over crowded highways to the coast, then the somewhat slower run on a heavily traveled boulevard until the car is drawn up to the entrance of "The Breakers," "The Driftwood," or some other resort hotel.

Hot and tired, the family will scramble for the showers to freshen up for dinner which is waiting in the well-appointed dining-room where the atmosphere and service present no contrast to the best available at home. Attired, now, in approved boardwalk garb, the group will stroll with the crowd for a glimpse of the surf. In the morning they will don bathing suits, rent a couple of beach umbrellas, and scoop the sand over their feet and legs.

This, I believe, is a fairly accurate description of the way in which most of us have come to know the seashore. But this is the seashore of elaborate hotels and shanty beach cottages, of boardwalks, midways, and the congestion of traffic and pressing crowds. It is far removed indeed, in character and appearance, from the limited, remote stretches of magnificent coastline of the United States which have been untouched by commercial development and remain today in almost the primeval condition in which they were found by those who first touched their shores.

Largely from the impetus given the park and recreation movement by Emergency Conservation Work development of areas throughout the United States, under National Park Service planning and supervision, the American people are acquiring a new concept of outdoor recreation, and an appreciation of the value and importance of natural park areas. For that reason, and in line with its general policies, the Service is interested in the acquisition of certain natural, coastal areas to be set aside as national seashores where the people can get acquainted with and enjoy the beauty of the seacoast in its unspoiled state.

One of the finest of these areas is the group of elongate islands extending for about 70 miles along the North Carolina coast from a point a few miles below the village of Manteo southward to Ocracoke Inlet. It includes Cape Hatteras which embraces a state park already established around old Hatteras Lighthouse, which for many years gave to passing ships warning of the treacherous Diamond Shoals lying off Hatteras Point.

This long, narrow spit, separating the Atlantic Ocean and Pamlico and Albemarle sounds, has wild, primitive beauty of fascinating appeal. The disappearance of most of its timber stand as the result of early lumber cutting and the uncontrolled grazing of wild ponies and domestic

cattle has left seemingly endless stretches of rolling sand dunes against which the waves crash in their ceaseless rhythm. The constant wind which sweeps the banks keeps the sands in continual, restless movement. Along the shore lie the pitiful skeletons of wrecked ships, half buried in the sand and pointing their ribs to the sky. Every few miles one finds a quaint fishing village nestled in a small inlet on the sound side of the spit, usually close to the Coast Guard stations which dot the beach every few miles. Here and there are hunting lodges built by clubs or individuals, but they remain unoccupied except during the wild duck or game fish seasons.

You can go within fairly close striking distance of this area on hard surface road. For instance, you can load your car aboard a steamer at Washington and travel overnight to Norfolk, Virginia. From this point it is 76 miles over good highway to Port Harbor where a bridge three miles long connects with the northernmost banks. Turning southward once more, you are now in the country where the Wright brothers made the first airplane flight which is memorialized by a striking stone monument atop a hill at Kitty Hawk. Nearby are eight lofty dunes of white sand which are continually building and changing shape under the steady wind. They are called Jockey Ridge, and the Seven Sisters. Along this part of the route a number of cottages and one or two small hotels have sprung up between the road and the surf, and the place is but a little less developed than many other seashore resorts.

At the Whalebone Filling Station—distinguished by the huge skeleton of a whale propped up near a small white building—the road ends. Here the pavement swings to the right and leads into the village of Manteo about six miles to the west. Now you are at the point where the primitive begins. You drive off the road onto the sand, stop, and let about half of the air out of your tires, because the rest of the driving will be over the almost trackless beach.

Now you head southward again, and get your first taste of tricky beach driving as you make for the ferry landing a short distance away. Having ascertained the ferry schedule, you are in time to make a prompt connection with the little boat. The car is backed aboard under the direction of the hale skipper who also acts as deck-hand, and in about 30 minutes you are deposited on a sandy beach from which point you are absolutely "on your own." Two other water jumps on the route are made across rude but substantial bridges.

If it has rained the night before, you are in luck, because the sand will be fairly firm. You don't have to "watch the road" now, because there isn't any road. You can drive helter-skelter wherever you find the going best, running around the sand dunes and the rotting keels, ribs, and masts of wrecked ships in this "Graveyard of the Atlantic." At low tide the best driving is close to the surf where you can skim along with the wash of the breakers smacking your wheels. It must be remem-

bered that real skill counts now in the handling of the car. Ordinary driving experience is no particular training for beach driving, although navigating in the sand is something like driving in unpacked, drifting snow. "Riding the surf" takes a special technique in order to keep close enough to the hardest part of the sand without actually plowing through the water. The novice would do well to take the first few miles slowly, feeling his way and gaining experience in handling his car under these new and strange conditions. Cars equipped with extra-large tires handle best, because it is tire surface which counts in getting traction and maintaining headway.

Once under way, you begin to receive your impressions of the full beauty of this narrow strip of beach. To the east is the great Atlantic, and to the west is the North Carolina mainland, some 30 miles across Pamlico Sound. A turn of the wheel and a short run one way or the other takes you to either side of the spit and the water's edge.

The entire spit is definitely marked through its center by the vegetation line. On the Sound side the sand is quite well covered with grass which holds it in place, and along the west shore there is a fairly good growth of trees. It is on this side where the villages, such as North Rodanthe, South Rodanthe, and Avon, are found. They are extremely pleasing to look at, with their trim houses and wide board fences, usually painted white. The roads winding among the houses are little more than tracks in the sand, and very often they come to a dead end at someone's door. Each village has a general store, around which local residents are gathered at various times of the day.

After visiting one or two of these villages, you will probably swing back to the beach, passing again across the line of vegetation to the shifting, restless sand. For miles the beach and the surf stretch out before you. If the day is clear, the ocean is an unbelievable blue under the sky, relieved by the white foam of the breaking waves as they sweep the shore. The wild and free atmosphere is accentuated by the brisk wind as it tears at the crests of the waves and dashes white spray into the air. You will never grow tired of watching this action of a wave breaking and part of its mane ripped off and cast upward to disappear against the horizon. Then the wind charges on to the shore to worry the sand and keep it on the move. That is the strange and fascinating thing about the banks. The sand is always moving. In long, ghostlike fingers the white powder glides along, lightly touching everything in its path. Standing on the beach, you can bend down and hear it sizzle against your shoes; and where your foot rests the sand will start to build a little dune as it continues its eternal process of drifting and covering everything in its path. Its action is like that of snow; it works slowly, gently, but steadily.

It is this continual action of the wind on the sand that is making possible reclamation of the entire banks under the beach erosion control

project which is now being carried forward by the National Park Service. Along the entire length of the spit, light brush fences are being erected approximately 200 feet back from the surf. When it strikes these fences the sand falls, and gradually builds a long dune entirely covering the fence. When the dune is sufficiently high (about 15 or 18 feet) it is planted with grass which anchors the sand. This dune serves as a barrier to stop the inroads of the ocean on the coastline, which began when the area was denuded by lumbering and grazing which released the sand to the eroding powers of the wind and water. The shoreline, which was being gradually washed and blown away, will now be fixed, and sometime in the future heavy vegetation and trees will again cover the area, returning it to its original condition. A trip over this region by air shows clearly how the uncontrolled sand dunes, slowly moving westward, have been crushing trees and other plant material under their weight.

By now you are undoubtedly fairly well experienced in beach driving, and you press onward toward Cape Hatteras. The going is not fast on the whole, although a speed of 40 miles an hour can be attained over stretches of level, hard sand. Sometimes the sand is quite soft and deep, and you push along in the tracks of another car, making not more than 10 or 15 miles an hour.

On a fairly clear day, old Hatteras Lighthouse, with its black and white barber pole stripes, can be sighted at a distance of ten miles. It probably marks your destination for that day, because beach driving takes real piloting of a car and you are undoubtedly tired—if happily tired. The lighthouse, which was built in 1870, was in constant use until recently when, because of the danger of its being undermined by the process of beach erosion, it was abandoned and a new light of less picturesque type built farther inland. Standing 197 feet high, it is the tallest lighthouse structure on the Atlantic Coast. It will be preserved as an American antiquity, and is within the state park area.

Next to the lighthouse is a little mound surmounted by a single, large boulder, which marks the site of the original lighthouse at Cape Hatteras. Looking over this and across the Point, you can see the field of whitecaps which marks Diamond Shoals, known to seafaring men as the most dangerous spot on the coast. Twelve miles to the east courses the Gulf Stream which, at this point, is diverted across the Atlantic, carrying its warmth to the northern part of the European coast.

On the Sound opposite Cape Hatteras, extending for several miles, are the three villages of Buxton, Frisco, and Hatteras. They are quaint fishing communities where life is simple and set to a calm pace. There are no streets or roads through these villages, although the tracks of cars wind among the houses. To reach Buxton from Hatteras Lighthouse you drive past some fresh-water ponds where wild ducks nest, and through the woods. Your way is made over the sand trail which winds in a convenient course around trees and ponds and past the trim, freshly



Fresh water lake northwest of Hatteras Light
Courtesy U. S. Department of the Interior



Grass planting to control wind erosion of Cape Hatteras Beach
Courtesy U. S. Department of the Interior



Dunes at Creed's Hill, Cape Hatteras Area
Courtesy U. S. Department of the Interior



Sand fence constructed by WPA in beach erosion control
Courtesy U. S. Department of the Interior

painted houses. The foliage is of semi-tropical character, with thick vines interwoven in the trees, and small palm plants growing close to the ground.

Until automobiles became available, the people in these villages had to depend upon boats to get to the mainland. Even now, cars are not of much help except for traveling from one part of the banks to another, unless one wishes to make the 60-mile trip up the beach and ferry over to where the highway begins near Manteo. The cars are usually second-hand, because a new automobile would soon lose its newness in this country. Automobiles are not registered or licensed, except by a few persons who travel occasionally on the mainland. Since there are no roads on which to drive, it is not necessary for local cars to carry tags.

You should not leave Cape Hatteras without walking on the beach in the moonlight. That experience will undoubtedly prove to be the greatest thrill of all. With the wind in your face and the surf gliding up to your feet, you are held motionless in the contemplation of an ageless scene. What is the secret of the fascination of the sea? Perhaps it lies in the mysterious power of that great body to shift its stride from a smooth, steady roll to a lashing, destructive fury. Perhaps it is deeper than that, rising from our realization that of all the components of the earth, this, the sea, is the one thing which never changes. Earthquakes, through the ages, have altered the topography of the globe and glaciers have left the traces of their passage over the surface of the land; but the sea presents the same appearance today as it did at the beginning of time on Earth.

It is an unforgettable experience to plant one's feet in the cool, firm sand at the edge of the surf and gaze upon this matchless scene of ethereal beauty bathed in the soft, white light of the moon. The beach and the frothy breakers meet to form a line which extends for an unbelievable distance before dissolving into invisibility, and the ocean itself draws the eye out to the murky blackness of the horizon. To stand thus in the presence of such mighty forces of nature is tonic for the soul of one geared to the hurly-burly of modern living which now seems so remote.

The arrival of a new day brings opportunity for the visitor to Cape Hatteras to learn more about the possibilities for recreation in this wild, natural seashore area. This particular section of the seacoast—that is, the entire string of barrier islands between the ocean and Pamlico and Albemarle sounds—is probably the last region of virgin fishing ground on the Atlantic Coast. Oregon Inlet is nationally famous for its excellent sport fishing, and the entire coastal area, from Hatteras to Oregon Inlet, offers excellent surf fishing for thousands of sportsmen each year. The best catches are of blue fish and channel bass.

Cape Hatteras State Park is an area of 1,500 acres owned by the State of North Carolina. One of its principal features, of course, is the

old lighthouse which has been turned over to the National Park Service as a national historical site. The tall structure will be kept in good condition for public inspection, and the old oil lamps originally used in the light will be installed again as an exhibit of historic interest. Those who are hardy enough to climb the iron spiral stairway to the top of this 197-foot shaft are rewarded with one of the grandest views obtainable along the entire banks. Of special interest is the clock-like works of the light by which its huge lens was revolved from the power of a weight suspended by a cable for the depth of the shaft.

The state park surrounding the lighthouse is a particularly beautiful section because of the vegetation of its hinterland. The several small ponds in the area comprise a feeding ground for great numbers of wild ducks. The entire area is being protected against beach erosion by the erection of drift fences for the building of sand dunes which are expected to reach a height of 15 to 18 feet, with a base approximately 150 feet wide.

If this whole beach barrier of 70 miles is established as a national seashore, it is the intention of the National Park Service to keep as much of the area as possible in a primitive state. The needs of the public will be served with facilities for swimming, fishing, and overnight accommodations, but such developments will be carefully planned and controlled to avoid any serious modification of the natural character of the area.

There are few sections of primitive, natural seashore left on the coasts of the United States, and before long they will be lost forever under the steady march of commercial and industrial development unless prompt action is taken to preserve them. The North Carolina banks offer an unusual opportunity for the establishment of a national seashore which will be one of the treasures of our park recreation grounds.

THE KATAHDIN NATIONAL PARK BILL

MYRON H. AVERY, Lubec, Maine

LISTED in the 20TH ANNIVERSARY NATIONAL PARK SUPPLEMENT to PLANNING AND CIVIC COMMENT, as an area containing features suitable for inclusion in the National Park System (p. 34), is "an area in the Mount Katahdin region, Maine." This suggestion was translated into a concrete proposal with the introduction of H. R. 6599 into the Seventy-Fifth Congress by Congressman Ralph O. Brewster. Thus a long-anticipated movement to make the region adjacent to Mt. Katahdin in Maine a national park formally became a reality.

In this connection, it may be of interest to note briefly the salient features of this region. Katahdin, the mountain, is a mass of sheer granite, rising in the central Maine wilderness a mile in height. With the possible exception of Mt. Washington, there is no other single peak

in the eastern Atlantic States which is better or more favorably known. As an indication of its preëminence, one need only refer to the surprising scope of the literature of this region; more has been written about Katahdin than any other single peak in the United States.* That so many articles of every nature should have been written about this region would seem to preclude any necessity for elaborating on its values. The record has already been made.

Congressman Brewster's bill proposes as a public reserve, for all time, not merely the outstanding peak in the eastern Atlantic States, of exceptional botanical and geological interest, but an extraordinary surrounding region. The fame of Katahdin, the Mecca of eastern mountain climbers, somewhat overshadows the surrounding region but, even without Katahdin, the area would be well worthy of national park status. In all, the region sought to be preserved embraces some 504 square miles. It includes some 55 peaks and 69 lakes or ponds. Apart from Katahdin, it is a distinct type of the north Maine wilderness, with a cathedral-like somber spruce and fir forest, a land of lake and stream teeming with fish and game.

Narrow dirt roads lead to the foot of the mountain at its southern extremity. Many climb each year to the summit of Katahdin, but the vast country to the north, trailless and difficult of access, is as unfrequented and much the same as it has been for over a hundred years when the settlers from the coast first pushed back to explore this interior.

The Katahdin region is a specific type, with a distinctive flora and fauna, which should be forever preserved as a heritage of the American people. Since 1804 when Charles Turner, Jr., a surveyor from Scituate, Massachusetts, first reached its summit, although his Indian guides, terrified by the Pamola legends, had refused to accompany him, the visitors to Katahdin have formed a distinguished list—names renowned in American literature and history—Henry D. Thoreau, Edward Everett Hale, Thomas W. Higginson, Theodore Winthrop, Frederick E. Church, C. E. Hamlin and scores of other names less known to the general public but renowned in scientific circles. Henry D. Thoreau's story of his ascent in 1846 is a classic of out-of-door literature. Well known is Theodore Winthrop's characterization: "The best mountain in the wildest wild to be had on this side of the continent." So have the constantly increasing number of visitors to Katahdin echoed what Winthrop wrote almost a hundred years ago.

Geologically, Katahdin is of extreme interest. The mountain's present shape, with its tableland of some five or six miles in length, is due to the glacier which stood down over New England eons ago and so skilfully sculptured this granite mass. Of a later origin were the local glaciers

*The Appalachian Trail Conference has issued, as its Publication No. 6, "An Annotated Bibliography of Katahdin," by Edward S. C. Smith and Myron H. Avery, 78 pp. (\$1.00; 901 Union Trust Building, Washington, D. C.).

which account for the steep-walled cirques or basins, Great or South, North and Little North. From the ponds in these basins, sheer granite walls rise some 2,000 feet. It is a transplanted bit of the High Sierra. Glacial moraines have formed a chain of ponds across the mouths of these basins. On the western side of the mountain are Northwest Basin and Klondike Pond, two other glacial ravines. The latter, discovered half a century ago, was lost to visitors until rediscovered in 1922. The original shape of the mountain, before the glacier stood down over it, is a matter of vaguest conjecture. From the east it resembles a split open series of volcanic cones. From the south it is a long barrier wall; from the west it is merely the culminating peak of two parallel ranges which lead to it from the north.

The flora, as well as all the other natural features of Katahdin, is of extreme interest. It is an Arctic island, a relic of the vegetation which followed the retreating glacier back north. The names of the plants found on the summit are those now found in Greenland and northern Labrador. Along the dense scrub on the top are still to be seen the faint trails of the caribou which, for some unknown reason, migrated from the State about thirty years ago.

The visitor to Katahdin who has climbed to its highest summit surveys to the north, west and east a vast wilderness broken only by the silvery sheen of countless lakes. It is also a land of mountains. This is indeed surprising, for seen from the south, Katahdin creates the impression of a solitary mountain. All of these peaks are trailless. To the north extend two parallel ranges. One, averaging 4,000 feet—a very real elevation in Maine—is an L-shaped range, known to the Indians as The Katahdinauguoh, whose dense spruce and fir-covered summits extend first west and then north until lost from view, inclosing a great, high, elevated spruce flat known as The Klondike, so named by an Indian a quarter of a century ago who was attracted there by its wildness and remoteness. Few are the people who have ventured into The Klondike. Across from the Katahdinauguoh to the west is the Doubletop Range. Seen from many points of view, Doubletop is a cone, almost a perfectly shaped mountain. On Doubletop there is a tower—occasionally used for fire protection—the one necessary intrusion upon the naturalness of the surroundings. East from Katahdin is the gigantic range of Turner Mountain. North is the outstanding peak of The Traveler with six bare summits. The Traveler owes its name to the fact that voyageurs down the East Branch of the Penobscot River thought that the mountain “traveled” with them. North from The Traveler is the group of cone-shaped, glistening peaks which so indelibly impressed Henry D. Thoreau as he glided down the dark waters of Second Matagamon Lake. His Indian guide told him that they were the “Deadwater Mountains.”

The boundaries of the proposed Katahdin National Park have been well drawn. Apart from the outstanding groups of mountains and forest



Mt. Katahdin from Penobscot West Branch
Photograph by Call Studio



Pastoral charm and scenic beauty of the Green Mountain region in Vermont

Photograph courtesy U. S. Department of the Interior

cover, they include many lakes. Of outstanding beauty is Matagamon or Grand Lake. The rivers which bound this area are the most famous in Maine—the East Branch and West Branch of the Penobscot. The latter was formerly the favorite route of approach to Katahdin; the former is known as the wildest canoe cruise in the State.

The summit of Katahdin, nine square miles, has been in public ownership since 1931 as Baxter State Park, the gift to Maine of former Governor Percival P. Baxter. The Katahdin National Park Bill is merely a further development of the same spirit which prompted Governor Baxter to purchase the mountain top. It reflects a feeling that the larger area and the surrounding Katahdin wilderness should be made a public reservation. Unfortunately, since the creation of the Park, the State has not been in a position to provide the needed supervision and maintenance over the region and facilities for the ever-increasing number of visitors. Last year, Congressman Brewster has said, there were some ten thousand visitors to Katahdin. Under such circumstances, the need for adequate facilities and proper supervision to meet these problems is too apparent to require elaboration.* There is need for a long-term, planned program to insure the adequate protection of this area. It is more than a state matter and obviously the State cannot provide the necessary protection and facilities required, even if the present state park area were increased by donations. Apart from this, the Maine statutes limit the size of State Parks to 10,000 acres and an increase in the size of the region owned by the State would only intensify the problems.

The wilderness of the Katahdin region is universally recognized. Everywhere there is expressed concern over the possibility of irreparable damage and haphazard development resulting from the *laissez faire* policy now in force; for, with the exception of the nine square miles of the mountain top, where any "development" is scarcely physically possible, there is at the present time no method of protecting its wilderness character. It is a realization of these problems, together with the desire to preserve this unparalleled region as a heritage for the American people, which has prompted the Katahdin National Park Bill.

Other National Parks along the Appalachian chain in the East have a dominating height with a ridge crest structure and long side spurs. The Katahdin area differs in that there are lakes and streams so numerous as to resemble, as one climber wrote, "the shattered fragments of a mirror." This region, comprising the best of Maine's mountains, lakes, and streams, as deserted as it was a hundred years ago, with a forest cover characteristic of the State, forms a type which should be forever preserved for the American people. In order that the attractions of this region may be utilized to the utmost, the area surrounding the mountain should be given a national park status.

*For a detailed statement of the situation at Katahdin, see *The Congressional Record*, June 9, 1937, pp. 7, 193-4.

GREEN MOUNTAIN NATIONAL PARK PROPOSAL

A. E. DEMARAY, Associate Director, National Park Service

IT IS proposed that a portion of New England with its pastoral charm and scenic beauty be added to the National Park system. The Green Mountains region is of well-known scenic, historic, and scientific worth and distinction. There should be no hesitation in seeking to safeguard a carefully chosen portion of an area, the unique and delightful qualities of which are of national knowledge and interest.

New England has been populated almost since the very beginning of the white man's existence on this continent. Since those early beginnings, the dense population of the Northeast has spread over the countryside, changing its environment, destroying the forest cover and wildlife, diverting and polluting its streams and water supply, taking from nature that charm emanating from unmolested land. But by some trick of fate Vermont, close to the center of the Northeast, has within its boundaries some of the finest scenery within the United States; and its people, through disposition, pride, and love of the land, have managed to hold for themselves their mountains and valleys in an unusually undisturbed condition. To be sure, the land has been used to produce food and fuel for many generations, but used with such temperance that the vistas from the farm-home windows are still some of the finest in the world, the streams bubble clean and clear, and an atmosphere of peace and charm not readily found elsewhere has been retained.

The mountains of the eastern United States are among the oldest in the world. They lack the ruggedness, the overpowering magnificence of the Rockies and Sierra, but their antiquity and the geologic action to which they have been subjected has produced a quality in them equally as interesting as the Rockies, a quality of peaceful grandeur, of quiet soothing charm. That portion of the eastern ranges within New England, particularly in Vermont, differs from the sections of the Appalachian Range already chosen as of national park calibre in that its geological experiences have been more varied; but the primary difference is that it has been subjected to glacial action. Peaks have been reduced in size and valley floors elevated. The great mountain mass has been subdued.

The scenery of any region is due to the many factors of topography, geology, climate, vegetation, and water. Scenically the Green Mountain region is probably as interesting and beautiful as any wild mountainous region in America. The scenery is entirely different from the higher and larger-scale mountains of the Southern Appalachians, or from that of the mountains of the West, with their far greater elevations and generally sparse vegetation. It is the great variety of scenic types, the extreme richness of the vegetation, the abundance of water in the form of lakes and streams, the sudden and precipitous views over charming valleys, both wild and inhabited, the strong individuality and relative grandeur

of the many isolated peaks and the altogether striking effects of the foliage color in the fall that give to the Green Mountains their notable beauty. As an example of characteristic American scenery, the Green Mountains are probably as worthy of preservation and as satisfying to the visitor in search of inspiration and recreation as any scenery to be found in the United States.

The sudden rise of the Green Mountains from comparatively low elevations, together with the northern latitude of Vermont, produces an extreme range in botanic growth in a very narrow compass. It is doubtful that anywhere in the East is to be found such a wide range of types within such a short distance. Today there is very little old growth or primeval forest to be found in the mountain area, which has been the scene of lumber operations for the past 200 years. In spite of this fact, due to the richness of the forest soils, the Green Mountains are generally covered with dense growths of trees. Wherever lumbering has been quiescent for a generation, the woodlands are again attaining the size and character of a true forest. Because of the soil and the very sure and constant moisture, unusually favorable conditions are offered for forest growth, especially for deciduous trees and spruce. Thus have been produced and are being produced fine stands of hardwoods of an unusually large size for the East. All available species are encompassed within 10 miles of each other, producing ecological relationships unique and of outstanding interest and appeal to student and layman alike.

While the policy of development within the area should be one dedicating it to wilderness accessible only by a carefully located trail system, the recreational possibilities need not be neglected. It is proposed to include as a part of the project a 1,000-foot right-of-way for 50 miles of parkway bordering the area in the western valley land. The function of the parkway would be to present, from a delightful setting, outstanding views of the mountainous area, particularly of the major peaks, Mt. Mansfield and the Crouching Lion; and to provide a location for whatever development might be necessary in presenting the area to a public already visiting the region in large numbers.

The geologic basis of New England's topography is a story readily seen and told in this area. It is a story as important and as interesting to the people of this Nation as is the world-famous one that is taught by the Grand Canyon of the Colorado. The vegetation produced by Vermont's rich soil is typical of our more northern regions, yet more lush and varied. Its range of color from the soft green of spring to the rich verdancy of summer and to the striking reds, bright orange, and pastel yellows of autumn is balanced only by the beauty of the gleaming mantle of snow that winter spreads over field and forest. It is fitting that Vermont and the Nation should acquire and set aside this area for its highest use.

National Capital Parks

EDWARD KELLY, Administrative Assistant, National Capital Parks

PARK development in the Federal City reached a new record of achievement during the past year. The Mall, dream of L'Enfant, was fitted to its formal dress after a century and a half of ungroomed shabbiness and Union Square, conceived by the McMillan Commission of 1901, came into being as one of the major plazas of the National Capital; the small parks and important triangles within the boundaries of the old city were rehabilitated and redesigned to meet the fashions and requirements of modern times; magnificent Meridian Hill Park was completed after 25 years of progressive effort; Fort Bunker Hill and Fort Dupont emerged from their long sleep to take their respective places among the most important and beautiful small and large parks in the National Capital Park system; Fort Hunt, along the Mt. Vernon Memorial Highway, Roosevelt Island, the Rock Creek and Potomac Parkway, the George Washington Memorial Parkway upstream from the Arlington Memorial Bridge, and numerous areas devoted to active recreation throughout the Park system were among the park features and facilities that were given added importance and utilitarian value by the constructive touch of progress.

The Mall and Union Square. These accomplishments resulted largely through the completion of projects inaugurated during the years 1934-35 under ECW and PWA authorization, and through the continued assistance extended by the Works Progress Administration. The story of the Mall and the struggle that has been made for the preservation and development of this salient feature of L'Enfant's original plan for the Federal City, is a familiar one to the reader of the AMERICAN PLANNING AND CIVIC ANNUAL.

Washington and the Nation were awakened to the importance of the influence of the Mall on the character of the National Capital by the McMillan Commission of 1901, but little was achieved toward the ultimate development of the parkway until Public Works Administrator Harold L. Ickes made funds available for its completion. The principal work achieved under this authorization has been the opening of the vista between the United States Capitol and the Washington Monument, which extends westerly to the Lincoln Memorial, connecting by the Arlington Memorial Bridge and Memorial Avenue to Arlington National Cemetery and the historic Lee Mansion. Four parallel roads with bordering walks, planting of ornamental trees and shrubs, the development of lawn areas, and the border planting of four parallel rows of American elms, have been included in the work accomplished. To achieve these results, it was necessary to demolish and remove obtrusive structures which had been erected within the vista area, and to regrade practically

the entire length of the Mall proper. The result achieved is, in effect, a green carpet, 300 feet in width and approximately one mile in length, spread between the Capitol and the Washington Monument, with border plantings of American elm.

Union Square occupies an area at the eastern terminus of the Mall, separated from the Capitol grounds only by First Street. It extends westward to Third Street and is bordered on the north and south by Pennsylvania and Maryland Avenues. This area was formerly occupied by the Botanic Gardens and had grown in disuse until it had represented an uglification magnified by the prominence of its location. The first step in the development of the plaza was the removal of the disfiguring structures and the plant materials which obstructed views of the U. S. Grant and George Gordon Meade Memorials. Proper landscaping and construction of roads within the area has restored the memorials to the importance that they merit, and has completed the opening of the vista between the Washington Monument and the United States Capitol. There remains in Union Square an excellent site which is tentatively reserved for the erection of a memorial to a Union naval hero of the Civil War period. An item of major importance and consideration in the development of Union Square was the preservation of the valuable and historically interesting trees which had been planted there. The total expenditure by the Public Works Administration for the Mall and Union Square developments was approximately \$1,000,000.

Small Parks and Triangles. One of the major items in the public works program for the National Capital Parks was the rehabilitation of the small parks and triangles within the boundaries of the old city of Washington. Through intensive use during their more than a century of existence, and the penny-wise folly of providing inadequate funds for the proper maintenance of these areas, these parks had suffered universally until their worn-out soils could no longer support a pleasing turf. Shrubbery and other plant materials had reached a degree of shabbiness unbecoming to the Capital of the Nation, and walks, benches, fountains and other facilities had reached a degree of obsolescence that demanded the constructive action of a general program for their rehabilitation. A thorough study conducted by the Branch of Plans and Design, National Park Service, revealed the necessity for redesigning many of the areas to meet modern conditions, complete regrading, top-soiling, and the development of new turf areas and ground coverage, the installation of additional landscaping materials, and the erection of new physical facilities. The plans pursued were in a degree revolutionary in character, based upon the accepted judgment of the best qualified modern landscape architects. The results achieved have fully justified the effort expended. To a large extent, plantings of annual materials were replaced with shrubs and perennials, and wherever practicable, ground coverages of *Vinca minor* and other evergreen creeping vines were substituted for

turf, for the purpose of eliminating the necessity of expensive annual maintenance. Broad walks were constructed to discourage the damaging practice of "short-cutting," substantial benches, constructed to resist damage by vandals, were installed on permanent bases, and ornamental iron fences were erected as a further safeguard to the plantings. Among the more important park areas to receive treatment under this program were Lafayette Park, Franklin Park, and Folger Park. Approximately 50 triangular park areas were included in the public works program, and 65 others were improved through WPA assistance.

Meridian Hill Park. Originally conceived as a great formal garden comparable to the Pincian Hill in Rome, the Tuileries in Paris, and the Public Gardens of London and Vienna, the progress toward the development of Meridian Hill Park is traced over a period of 25 years. No Congressional appropriations were made for a continuation of the work during the period 1932-36, however, and, although the total Government expenditures for its development had reached \$1,500,000, progress on the completion of the park was at a standstill. In 1936 the Public Works Administration made \$145,000 available for continued development of the park, and the work was pursued to its completion.

Fort Bunker Hill Park. Fort Bunker Hill Park comprises a square city block bounded by 13th and 14th, Perry and Otis Streets, N. E. As an Emergency Conservation Work project, a design for an unusual small park utilizing the natural advantages of the site was prepared. The accomplishment of the plan was effected through the use of natural materials transplanted from a near-by Maryland woodland whose owner presented them for use in the park. These materials include more than 5,000 laurel plants and abundant plantings of blueberry, holly, flowering dogwood, and red oak. The effect of the massed display of coloring during the blooming of the dogwood trees and laurel plants is one of great interest and beauty. The generous and effective use of the natural materials has made Fort Bunker Hill one of the most beautiful small parks in the National Capital Park system. Another feature of unusual community interest in Fort Bunker Hill Park was the development of a sylvan hillside theater with rustic seats and a natural stage arched by two gigantic oaks. The theater has a seating capacity of approximately 400, which can be doubled through the installation of additional benches.

Fort Dupont Park. Fort Dupont Park derives its name through association with Fort Dupont, one of the largest of the Civil War defenses of the National Capital, which is contained within the area. The park proper is a natural area of approximately 360 acres. Its features of principal interest are interesting and valuable trees, a stream valley, an abundance of interesting wild flowers, plants and shrubs, and a varying topography which slopes toward the Anacostia River, along the banks of which it connects with Anacostia Park. It is likewise an important link in the proposed Fort Drive development.

Picnic groves and facilities were provided in response to a demand that has made itself felt for many years, and the intensive use to which the groves have been put during the present season is proof of the great need for this type of park development that exists in the southeastern section of the District of Columbia.

Fort Hunt. Fort Hunt, located approximately one mile north of the Mount Vernon estate along the Mt. Vernon Memorial Highway, embraces an area of approximately 400 acres. It was vacated by the Army in 1932, when it became a part of the National Capital Park system. Its development has been planned as an active recreational area, the plans including a golf course, tennis courts, picnic groves, track, swimming and other facilities. Through the construction of active recreational activities in the Fort Hunt reservation, it is hoped to prevent the established usage of other areas along the Mt. Vernon Memorial Highway, and particularly close to the Mt. Vernon estate, for purposes that might detract from the dignity and memorial character of the parkway.

Roosevelt Island. Work upon the development of Theodore Roosevelt Memorial Island, in accordance with the approved plans of Frederick Law Olmsted, have reached an advanced degree of progress. This work, which was executed by a company of CCC employees, has included the clearing of undesirable plant materials, regrading some portions of the island area, construction of trails, and the installation of approximately 20,000 trees and shrubs. All of the material planted on the island was obtained from near-by Virginia and Maryland woodlands and is native.

Rock Creek and Potomac Parkway. Landscaping operations in Section 1, Rock Creek and Potomac Parkway, located between Constitution Avenue and K Street, has included the development of lawn areas and the installation of trees and shrubs. In addition, a new bridle path paralleling the roadway has been constructed in the area between the highway and the seawall.

George Washington Memorial Parkway. Rough grading and drainage of the George Washington Memorial Parkway extension between Arlington Memorial Bridge and Key Bridge was completed during the year, and work upon the construction of a connecting bridge across the boundary channel has been started. This work is being performed under the Public Works Authorization for Roads and Trails, National Park Service. It is being supervised by the U. S. Bureau of Public Roads.

The preliminary development of the Leiter Estate, located on the Virginia shore of the Potomac, approximately two miles above Chain Bridge, was accomplished as an ECW project during the year. The area is now available for the use of hiking, picnic, and bridle path parties.

The Palisades Field House and Playground. The new Palisades Field House, which was constructed as a Public Works project, was opened to the public on November 1, 1936. This facility has proved exceptionally popular, and the intensive use made of the community hall and boys'

and girls' indoor playrooms has been taken as an indication of the need for additional facilities of this type to serve the various residential areas.

Swimming Pools. The construction of two modern swimming pools in the National Capital Parks was completed under Public Works authorization during the year. The new East Potomac Park Pool is the largest in the National Capital Park system, being 65 x 164 feet in dimension. It is located adjacent to the golf course field house in East Potomac Park, and has a maximum capacity of 2,000 bathers. So that the pool might be made more accessible to children of homes in southwest Washington, a free ferry service across the Washington Channel has been inaugurated. The ferry operates between the Metropolitan Police Wharf at M and Water Streets, S. W., and a new wharf constructed by the National Capital Parks office adjacent to the new swimming pool. Free swimming is permitted in all of the National Capital Parks swimming pools between 9:00 A. M. and 12:00 noon each day.

The new Anacostia Park Swimming Pool is 65 x 150 feet in dimension and incorporates all of the standard features of the modern pools.

Pierce Mill. The project for the restoration of historic Pierce Mill in Rock Creek Park, authorized by the Public Works Administration, was completed during the year, and the restored mill was opened to the public on January 10, 1937. The mill was restored and is being operated as an educational and historical exhibit. The Welfare and Recreational Association of Public Buildings and Grounds, Incorporated, has been authorized by the National Park Service to operate the mill, with the provision that the mill and flour produced be used in the cafeterias of the government buildings or sold to retail purchasers at the mill. Since its restoration, the mill has proved to be one of the most popular features of the park system, more than 3,000 persons having witnessed its operation during a single day.

Recreational Facilities. The development of additional recreational facilities throughout the National Capital Park system has made important progress during the year through assistance obtained from the Works Progress Administration. Principal among the achievements of this program have been the construction of a new wading pool in Langdon Park, construction of tennis courts, track, baseball and soccer fields at Banneker Recreation Center; grading and development of parking space, baseball and playing fields at Takoma Recreation Center; grading and construction of tennis courts at Edgewood Playground; grading and installation of drainage system at Turkey Thicket Recreation Center; regrading at Taft Recreation Center; grading and development of playing fields at Chevy Chase Recreation Center; and the landscaping treatment of areas devoted to active recreation throughout the park system. In addition, considerable progress has been made toward the grading, top-soiling, seeding and development of the golf course in Section G, Anacostia Park.



Pierce Mill, restored and operated as an educational and historic exhibit in Rock Creek Park, Washington, D. C.

Photograph courtesy U. S. Department of the Interior



Impressive forest-clad hills in Pisgah National Forest, North Carolina

NATIONAL FORESTS

Highlights in the National Forest Annual Report

F. A. SILCOX, Chief U. S. Forest Service, Department of Agriculture

EDITOR'S NOTE.—From the excellent Annual Report of the Chief of the Forest Service to the Secretary of Agriculture we present excerpts which seem pertinent to the general subject of land planning and land uses.

Land-Use Planning in the Forest Service. A prodigal and wasteful use of soils and their products has characterized the Nation's history. Whether or not there was justification for any part of it during pioneer developments, it now definitely menaces national permanency and progress. Common sense calls for a systematic study of our lands, determination of the types of service for which they are most useful, and the formulation of practicable measures for obtaining these services, both now and continuingly. That defines the essence and purpose of land-use planning. Economic and social service is both its measuring stick and its ultimate goal, impossible of attainment unless the course is determined by combined economic and social planning.

For this planning it is not enough to determine merely the kind of use for which the land is inherently best suited. An appropriate balance must be sought between farm, pasture, forest, range, recreational, wildlife, watershed, and other uses in the light of soundly coördinated national requirements for products and services.

The Forest Service has a definite place in land-use planning. Its participation is called for in helping to determine the lands which ought to be permanently devoted to forest purposes, and in helping to formulate measures suitably designed to promote or assure the use of these lands for the right forest purposes. These purposes include timber production, watershed protection, forest production and livestock grazing, wildlife production, recreational use, and whatever combination of these uses will yield the largest net total of public benefits. Beyond this comes the question of the particular agency through whose ownership and management the best use should in each case be obtained. These agencies are Federal, state, county, and other public and quasi-public, and private, of various forms. And in addition to the question of the class of ownership which should afford the most desirable results, there is the question of the rate at which the requisite major shifts in ownership ought to take place, and how to bring them about. . . .

Both in creating and administering the national forests—which comprise 9 per cent of the land area of the continental United States and bring into the reckoning the widest variety of physical, economic, and social conditions—land-use planning is basic. For the national forests are put, and must be put, to a multiplicity of uses. Often these uses conflict.

Sometimes the conflict can be harmonized; sometimes one use must give way.

Forest Service land-planning activities have three major purposes. The first is to foster and promote the permanent sustained-yield management of forest lands by private agencies to the fullest practicable degree and by all appropriate means, including correlated public ownership and management not adapted to private ownership. The second is to cooperate with the several States, under the provisions of the Fulmer Act of August 29, 1935, and otherwise, in the development of adequate systems of state-owned and state-managed forests to the fullest degree dictated by the state interests, means and limitations. The third is eventually to establish a national-forest status for the forest lands of such character or service as to require Federal rather than private or state ownership and management. Accurate and dependable determination of the forest areas falling in these three categories is prerequisite to effective action.

Full attainment of the social objectives of planned land use requires forest community planning. In the future economy of the Nation some millions of its citizens may properly look to the forests for their means of livelihood. Their needs for essential services, social opportunity, and cultural advancement will largely be met through permanent forest communities, based on related forest uses. Continued existence of many communities, originally established by chance, is now threatened by exhaustion of near-by forests. . . . Need exists to discover where the available or prospective forest resources and services make feasible the development of community centers where forest workers can live and labor in ways socially and economically desirable. . . .

National Forest Properties. On June 30, 1936, the gross area of the national forest was 197,434,517 acres, of which 31,455,826 acres were in ownership other than that of the United States, leaving the net area 165,978,691 acres—an increase of 2,668,689 acres. An additional 3,123,832 acres acquired under the Weeks law were within purchase units which have not yet been given national-forest status. . . .

Coördination of National Parks and National Forests. The physical characteristics of national parks and national forests are in many ways similar. Both embrace interesting and sometimes unique geological and organic examples of the operation and effect of natural laws, possessing high inspirational, educational, and recreational values. The basic difference relates to the form of administration through which the American people can derive from a given area the maximum social and economic benefits.

Sometimes the intrinsic values involved justify maintaining the area inviolate as a permanent "museum piece" deserving of national concern, and demand its administration exclusively as a source of scientific knowledge, education, inspiration, and recreation. In other cases the best public interest may require that the area be so managed as to derive from

it a coördinated series of benefits and uses, proper balance being maintained between the intangible services of scientific, spiritual, and recreational character and the tangible services to industry, commerce, and the general economy. A national-park status appropriately may be given to the "museum" areas, but not to areas where the principles of management most in the public interest are incompatible with those necessary for national parks truly meriting the name. . . .

Timber Management. During the year the demand for lumber improved. Prices, though not high, were firm and lumber production stepped up all over the country. Both the receipts and the quantity of timber cut from the national forests showed a sharp increase. The receipts rose about \$472,000. The cut-under timber sales and land exchanges was 1,021,156,000 board feet, as against 752,368,000 board feet in 1935—a rise of nearly 36 per cent. No large sales were made to supply new milling capacity. The increase in the cut is largely the result of purchasers' stepping up their production as the price and demand for lumber return toward normal. . . .

While sustained yield is not a panacea for all the ills of the lumber industry, without it permanency of operation and employment is impossible. Many operators have pushed liquidation so far that they now lack timber enough to put themselves on a sustained-yield operating basis. Realizing that they are reaching the end of their own supplies, they frequently wish to prolong their operation by piecing out with purchases of national-forest timber. It is the present policy of the Forest Service not to sell national-forest timber when to do so merely aids in liquidation under a "cut-and-get-out" policy. In general, sales will be for sustained-yield management, either where the national-forest unit will furnish the entire needed wood supply or where the timber sold will be correlated with that of the private operator.

Another year of stand improvement, made possible through the continued use of the CCC, has put many additional thousands of acres in proper condition for increased growth of the more valuable tree species. The experience gained by 3 years of this type of work has made it possible to analyze carefully the different silvicultural treatments given and to reach conclusions as to the methods which are giving the best returns. The two most commonly encountered forest situations in which stand-improvement work is unquestionably profitable are new stands that are just becoming established following cutting and stands of old, defective trees of inferior species that are retarding the development of valuable understories. In the first case the objective is to favor the more valuable and better formed species over faster growing weed species. This is probably the most valuable cultural operation which can be performed, since the future forest is in the making, and its composition can be largely controlled. In the second case, the inferior trees in the overstory must be felled or girdled to free the established new growth from root and crown

competition and mechanical injury. Work of both of these types will result in shorter rotations and in increased yields per acre, and so is an important initial step in placing forests grown under wildwood or unmanaged conditions in shape for sustained-yield management.

Range Use. In the calendar year 1935 the number of cattle permittees increased 1 per cent, and the number of sheep permittees 1.7 per cent, but the number of cattle allowed to graze under permit decreased 5 per cent. . . . In addition to the stock under permits, there were grazed in the six western national-forest regions 57,510 cattle and horses and 9,703 sheep and goats under the regulation authorizing free-use grazing of not to exceed 10 head of stock used for domestic purposes, or by prospectors, campers, and travelers, or in connection with permitted operations on the national forests.

A liberal nonuse policy was continued. It allows, when circumstances justify, temporary, partial, or entire disuse of range by permittees having established preferences without impairment of their preference standing. . . .

Advisory Boards. Almost from the initiation of grazing regulation, local livestock associations have been fostered, and their coöperation through the medium of advisory boards has been encouraged. There were 740 associations in 1935, of which 692 met the advisory-board requirements. The primary purpose of the grazing regulations is to make the national forests as useful to the people dependent upon them as possible consistent with the protection and perpetuation of the grazing resource. . . . Annual or special meetings of the local livestock association or its advisory board, attended by the local forest officer to discuss and agree upon current plans and management, have come to be matters of regular procedure. . . .

Recreational Use. This type of public use of the public forests is in all respects deserving of encouragement. The visitors need the recreational opportunity, and the dependent local communities need the money the visitors bring in. The public value of the national forests is greatly increased, and the heavy investment in road systems yields a larger return.

Three out of every four States now contain national forests readily accessible to large numbers of people. Their use for recreation is democratic and free, and involves a minimum of formality. Through normal administrative development supplemented by the CCC and employment relief programs, the recreational values have been enhanced. Each year the improvement of old roads and the construction of new ones opens up areas previously inaccessible to most visitors. Many of these areas are rich in recreational quality and have the added attraction of novelty. The resulting increased use enlarges the task of protection and administration. In part this calls for additional supervisory personnel, but in large part it calls for the development and maintenance of adequate numbers of public campgrounds to do away with the hazards to public

property and health created by large numbers of persons scattered promiscuously over extensive areas of high fire risk or upon watersheds from which domestic water supplies are drawn. . . .

The demand is increasing for privileges of occupancy of national-forest lands by outdoor resorts, summer camps, and summer homes. The greater permanency of and large investments in these types of improvements call for more careful planning to prevent conflicts with public use of important recreation areas or with proper utilization of natural resources. The same need exists for the careful planning of roads and industrial operations. To assure that current action does not destroy or impair national values likely to be of growing importance as time goes on, the Forest Service now has a number of technicians in landscape planning and recreational development and management.

In continuance of the policy under which appropriate portions of the national forests are designated as primitive areas, within which road construction, industrial occupancy, and other forms of development and use inconsistent with the preservation of unchanged natural conditions are not allowed, the Sycamore Canyon Area of 47,230 acres was established in the Coconino Forest in Arizona, 628,200 acres were added to the North Cascade-Mount Baker area in the Chelan and Mount Baker Forests in the State of Washington, and 72,440 acres were added to the Goat Rocks area in the Snoqualmie and Columbia Forests, also in Washington. At the end of the year there were 67 primitive areas, with an aggregate of 11,212,101 acres. They guarantee lovers of primitive nature opportunity to enjoy and study it in as nearly unmodified form as possible.

Water Power. It is difficult to comprehend the size, importance, and value of the water resources of the national forests. With more than 10 per cent of the continental United States land area within the boundaries of the national forests and approved purchase units, it can easily be realized that the water resource is great in amount and that it is a large percentage of the total in the entire country. But it is even greater than indicated by the ratio of areas, since very largely the national forests are located in the mountainous sections and accordingly the opportunities for power development are greater and the run-off per square mile of drainage area is higher than in sections of less slope. It is generally estimated that from one-fourth to one-third of the water power resources of the United States are within the boundaries of the national forests. Hundreds of irrigation projects and scores of large municipal water-supply systems are entirely dependent on the national forests for their water supply. The influence goes much farther and extends to power, irrigation, and domestic-supply uses hundreds of miles away, to navigation and to flood control.

The water-power work of the Forest Service falls into three classes:

1. Administration of permits and easements granted by the Depart-

ment of Agriculture or Forest Service prior to the passage of the Federal Water Power Act in 1920.

2. Acting as field agent for the Federal Power Commission on applications for permits and licenses affecting national-forest land. . . .

3. Investigation and report on conflicts between water power and other uses of national-forest land, together with recommendations for the creation, modification or vacation of power withdrawals and classifications, or for other procedure or action directed toward utilization of the resources for the use of highest value. . . .

When the year closed, the Forest Service, acting for the Federal Power Commission, was supervising the operations under 386 permits and licenses. . . .

Wildlife Management. The close relationships of various game animals to forage and other products of the national forests have increasingly emphasized the interrelations of wildlife resource with economic, recreational, and other forest uses. There is need to study and work out interrelations and practical programs through coöperation and through the application of research and sound planning. There is much that is not yet known or understood as to food and other conflicts, or lack of them. The various subjects can best be approached through a separate division of wildlife management, the creation of which was approved on June 1, 1936. H. L. Shantz, recently president of the University of Arizona, a student and authority on wildlife subjects in their varied research and economic relations, has accepted the Washington assignment as Chief of the Division. . . .

Of special importance among the wildlife considerations are the relations with growing recreational uses; also domestic livestock uses. National-forest visitors, fishermen and hunters included, increase each year. Domestic stock grazed on the forests total, with their increase, more than 12,000,000 animals. Sheep use about 20 per cent of the national-forest area in the Western States, and cattle 42 per cent; 38 per cent of the area is not used by domestic stock. It is where game and domestic stock use the same range that objectives and management plans need first attention.

HOUSING AND LIVING CONDITIONS

EDITOR'S NOTE.—Much criticism has been launched to attack the Government's housing program. Some of it has been justified. A good deal of it has been formed without sufficient information. Factual and informed explanatory statements by those who are familiar with the Government's activities should form the basis for all constructive criticism. While it is no doubt too early to arrive at a fair analytical conclusion concerning the contribution of the Federal Government to the housing problem, we present here the statements of the executives of the principal housing agencies, with the exception of the Resettlement Administration, which is not ready to report. We also present the considered view of a private dealer in real estate on the subject of the Government's activities.

PWA's Housing Division Program

HOWARD A. GRAY, Director of Housing, PWA

DURING the course of the four years' activity of the Housing Division of the Public Works Administration much has been written and said regarding the various phases of its program. There probably was, earlier, considerable confusion in the public mind regarding the various programs of the different Government agencies dealing with some form of housing activity. Today with slums cleared out and tenants occupying projects, the purposes and activities of the Housing Division of the PWA have emerged as a clear and definite picture.

The Program. The Housing Division of the PWA was set up under the Public Works Act to carry out a program of "construction, reconstruction, alteration, or repair under public regulation or control of low-cost housing and slum clearance projects." At the start of the program it was believed that by making liberal financing available to private, limited-dividend companies, sufficient activity would result to produce considerable housing. However, it was soon learned that such a low percentage of projects submitted were qualified that very little actual construction could be accomplished. Out of more than 500 applications from limited-dividend housing companies, only seven loans were actually made. These projects have operated with outstanding success and today provide excellent homes for more than 11,000 persons who might otherwise have been forced into substandard housing.

Dropping this type of activity, the Division turned to a Federal program. Here the Housing Division undertook to carry out, with the aid and coöperation of local sponsoring groups, a demonstration program involving the entire construction procedure from land acquisition to completion and management of the projects.

What is Being Produced. The present Federal housing projects being carried out by PWA consist of a total of 51 projects in 36 cities in the United States and in the Virgin Islands and Puerto Rico. When completed, these projects will accommodate approximately 21,775 families or a population of close to 100,000 people. Of these projects eight have been completed and occupied, and the others are scheduled for completion in succession so that all will be occupied or ready for occupancy in 1938.

The types of projects in their planning, construction, equipment, and amenities cover an unusually wide range. The geographical distribution of the sites alone, to say nothing of the peculiarities of local circumstances, has imposed such a difference of conditions upon design as to lend the utmost variety.

Slums and Vacant Land Projects. Of the 51 projects, 27 replace slum areas and 24 are built on vacant land. Every effort was made to clear slums wherever possible but this was not always the most feasible thing to do. High prices for slum property and inability to assemble large areas consisting of hundreds of individual parcels without the exercise of powers of eminent domain made slum clearance, in most cases, too long and difficult a procedure in an emergency. And again, in some cities the shortage of housing was too acute to permit slum clearance until additional new dwellings had been provided. In such cases, it was deemed more practical to select suitable vacant sites and thus pave the way for a future program of slum clearance.

Geographical Distribution. Almost every possible geographical and climatic condition is being coped with. It has been necessary to design and equip projects to offer comfortable year-round living in such vastly differing conditions as Boston, Massachusetts, and Miami, Florida; Minneapolis, Minnesota, and Montgomery, Alabama; Buffalo, New York and the tropics of San Juan, Puerto Rico. In the midwest region there are projects on the shores of the Great Lakes and in the extremes of hot and cold climates of Nebraska, Oklahoma and Texas. The territorial scope of the projects ranges throughout 20 States, the District of Columbia, Puerto Rico and the Virgin Islands.

Types of Dwellings. The types of dwelling units being produced consist of one- and two-story row houses, two-story flats, two-, three- and four-story apartments, various special types to suit unusual conditions, and combinations of all these types. Determination of which units to use depends upon careful consideration of local customs, degree of density of land use imposed by city planning, cost of the land, topographical and soil conditions, climate, comparative costs of operation, and many other considerations. In New York City, for example, where land cost was more than \$4.00 per square foot, it was feasible to build four-story apartments to produce an economical project as well as to provide adequate amenities, of light, air and open areas for play and parks. This was done in a city in which, heretofore, there were available to the lower-income groups only five- and six-story walk-up apartments covering practically all of the land with only narrow light shafts between buildings. In Montgomery, Alabama, on the other hand, where land cost was only three cents per square foot, one- and two-story row houses were built and the maximum in open landscaped and play areas was permitted. In the Lakeview Terrace Project in Cleveland, which is located upon a rather steep slope, a considerable number of a special "hillside-unit,"

being two stories on the upper grade and three stories on the lower grade, were used to advantage.

Although projects were designed by local architects, the Housing Division, preliminary to launching its actual construction program, made thorough technical studies of the various typical dwelling units and made the results of these studies available to the architects for their use.

In order to reduce annual financing and depreciation charges to a low figure and in turn obtain low rents, it was necessary to establish a comparatively long period of amortization. It was, therefore, necessary to build well, and first consideration in determining the type and quality of construction was given to cost of maintenance and operation. The type of wall construction, floor covering, plumbing, heating system, household equipment and every detail have been analyzed on the basis of most economical annual cost for maintenance.

Starting out in a depression period when construction costs were low, it was possible to design for fireproof construction of unquestionable desirability and thus be assured of the lowest possible depreciation charges. As construction costs rose, however, it was necessary in some of the later projects, in order to keep within project budgets, to resort to somewhat lighter construction, principally wood framing with brick veneer exterior walls.

Projects are all either fully fireproof, or semi-fireproof, the former being reinforced concrete and masonry construction and the latter being wood framing with brick veneer exterior walls. In one of the recent contracts awarded, designs were made and alternate bids were taken on an all-steel frame construction. Steel in this case, however, proved to be more expensive than wood framing with brick veneer and the extra cost could not be justified.

Both flat and pitched roofs have been used, depending upon local circumstances.

Heating. Heating for large-scale housing projects is a subject which would require volumes to discuss. The multitudinous variations of the conditions which were determining factors in setting up the type of heating system have resulted in the use of a very wide range of methods and equipment. Heating systems being used in the projects include:

Individual Coal Stoves	Group Heating Plants, Oil-fired
Individual Gas Heaters	Central Heating Plants, Coal-fired
Group Heating Plants, Coal-fired	Central Heating Plants, Oil-fired
District Steam (Purchased from existing utility companies)	

In each one of these general classifications of systems there are many other variations in details and specifications.

Site Planning. In planning the site for housing projects, two major principles have been held to: First, the plan of the development must fit into the pattern of the city so that it would become an integral part

of the city structure; second, the site plan must be such as to meet the various requirements of the project in the most economical manner. In carrying out the first principle, the Housing Division and the municipalities have worked in close coöperation. Many cities have availed themselves of an opportunity for carrying out at least a part of the major steps contemplated for years under their city plan. New streets and boulevards, widened streets, new parks and playgrounds, abandonment of unnecessary and costly public streets and alleys, rehabilitation of utility lines—these are a few of the things which have been made possible under the planning policies of the Housing Division.

The relative locations within the cities, the various types of dwelling units, the existing utility lines, the type of municipal services to be rendered to the project, the type of heating system, the topographical and soil conditions, have been of such wide range as to give an opportunity for producing a most interesting variety of site plans. There is the Laurel Homes Project in Cincinnati which consists of the complete rehabilitation of a very dense slum area on expensive land, involving a redesign of existing street pattern, widening of boundary streets, creation of interior as well as bordering park and play areas, and realignment of utility lines. Before the replanning, this site of over 30 acres was cut up by 12 streets and eight alleys, most of which permitted public traffic with all of its hazards to flow freely through the site. Buildings covered almost 60 per cent of the area and there were no interior parks or playgrounds. As it is now planned, there is only one street which crosses the site, buildings cover only about 23 per cent of the area, there are protected play areas in each apartment group, there is one large playfield and a large park adjoining the site. All of these amenities have been provided by careful planning and without making it necessary to reduce the number of families who had previously occupied the site.

Illustrating entirely different types of planning are such projects as the LaSalle Place Project in Louisville, on inexpensive vacant land in the outlying section of the city; the Liberty Square Project in Miami, a vacant, outlying site costing only four-tenths of a cent per square foot; the Lakeview Terrace Project in Cleveland, on a steep slope overlooking Lake Erie; the Langston Terrace Project in Washington, D. C., on outlying vacant land of very irregular topography.

Size of Projects. Since the size of projects has a very definite effect upon the economy of management and operation as well as construction costs, it is interesting to note that the Housing Division projects vary in size from the small development of only 50 dwelling units in Wayne, Pennsylvania, to the Williamsburg Homes Project in Brooklyn, New York, consisting of 1,622 family units. From this wide range of sizes of projects much should be learned about the problems and economies of large-scale housing operations.

Commercial Buildings. In the earlier projects commercial units such

as stores and garages were included. Policy was later altered to substitute open parking areas for garages and to build stores only when such were necessary to the project either for the purpose of reducing dwelling rents or for providing needed facilities in the neighborhood. Where stores are built they are leased at prevailing rates and no subsidy is applied to such rents. The profits from rents of such commercial buildings are applied to reduction of rents in the dwelling units. Open parking areas are so planned as to permit garages to be built at a later date if they are deemed absolutely necessary and can be rented at rates which are commensurate with the budgets of tenants of the project.

Appurtenances. The necessity or advisability of including in the projects such accessory facilities as laundry rooms, space for group social activities, interior play space for small children, storage rooms, office for the management of the project, maintenance and repair shop, community building and other such facilities, was carefully considered in each individual case and the facilities were planned in accordance with the results of studies. Separate community buildings were erected in some of the developments and in others, ample and appropriately located space for social activities was provided in the dwelling units. These social rooms can be converted into apartments if at any future time other facilities should be provided for these activities. Since the cost of operating independent community buildings would be a considerable expense to the project and would reflect itself in higher rents to the tenants, such buildings have been provided with the understanding that the municipality or some other local agency will bear the cost and responsibility of operating them.

Tenants and Rents. The manner of determining standards of eligibility for tenants who are to live in these public housing projects and the fixing of rents are governed by the George-Healey Act, a law passed by the Congress in 1936. This law states in Section 4 (b):

(b) Dwelling accommodations in such low-cost housing or slum clearance projects shall be available only to families who lack sufficient income, without the benefit of financial assistance, to enable them to live in decent, safe, and sanitary dwellings and under other than overcrowded housing conditions: Provided, That no family shall be accepted as a tenant in any such project whose aggregate income exceeds five times the rental of the quarters to be furnished such family. The term "rental" as used in this subsection includes the average cost (as determined by the Federal Emergency Administrator of Public Works) of heat, light, water, and cooking, where such services are not supplied by the lessor and included in the rent.

Rents are established in accordance with Sec. 4 (a) for the aforementioned law, which states:

(a) In the administration of any low-cost housing or slum clearance project described in Section 1, the Federal Emergency Administrator of Public Works shall fix the rentals at an amount at least sufficient to pay (1) all necessary and proper administrative expenses of the project; (2) such sums as will suffice

to repay, within a period not exceeding sixty years, at least 55 per centum of the initial cost of the project, together with interest at such rate as he deems advisable.

Thus, it can be seen, no persons who are occupying decent, safe and sanitary dwellings at rents within their means can move into these public housing projects. Competition with private enterprise which is providing suitable housing is, therefore, avoided.

With the assistance and direction of the Housing Division, local Advisory Committees or Housing Authorities set up eligibility standards for their particular cities and tenant selection is made in accordance with these standards.

Rental rates for the developments have been kept well within the means of low-income families. Shortly after the first project, Techwood Homes, in Atlanta, opened, it became apparent that the total average income of the tenant families was around \$21.50 weekly. This average figure has remained fairly constant in white projects which at this writing have admitted tenants.

Techwood base rents start at \$16.40 monthly for a three-room apartment. Base rent on four-room units is \$20.60 and on five-room units \$24.35. To these rents is added the wholesale cost of heat, lights, hot and cold water, and power for cooking and refrigeration. Thus the total utility charge for a three-room unit is \$5.95.

Rents for many of the Negro projects have been established on a weekly basis. In the William B. Patterson Courts development in Montgomery, Alabama, a two-room house can be rented for \$2.00 per week. Highest charge in the development is \$4.50 weekly for a five-room house, while the average rent is \$3.10. In Miami, \$2.85 weekly rents an attractive two-room house and \$3.73 covers a three-room unit.

In Milwaukee, rents start at \$15.15 for three-room units monthly and have a peak of \$26.78 for a five-room house. Jacksonville project rents average \$3.82 per week, and in the Harlem development in New York City, range from \$4.45 per week to a top of \$6.70, the latter being the average charge for five rooms in a neighborhood notorious for extortionate rents and incredibly congested living conditions.

Major Accomplishments of the Demonstration Program. The Housing Division fully realizes that many mistakes have been made in carrying out the many phases of our program and is quick to acknowledge them. However, as to the value of the results of the four years' experience in offering to both the technician and to the layman a rather extensive laboratory of large-scale housing, there certainly can be no doubt. Besides providing a certain amount of badly needed dwellings in various cities throughout the country, sufficient practical experience has been gained to furnish a basis for formulating a future housing policy as well as developing an improved technique for design and construction.

The many advantages of large-scale planning of housing projects are

being better understood each day both by those concerned with public housing and by private interests.

The list of PWA slum clearance and low-rent housing projects now operating or under construction follows:

City	Name of project	Number of dwelling units
Atlanta, Ga.	Techwood Homes	604
	University Homes	675
Atlantic City, N. J.	Stanley S. Holmes Village	277
Birmingham, Ala.	Smithfield Court	544
Boston, Mass.	Old Harbor Village	1,016
Buffalo, N. Y.	Kenfield	658
Cambridge, Mass.	New Towne Court	294
Camden, N. J.	Westfield Acres	515
Charleston, S. C.	Cooper River Court	
	Meeting Street Manoir	212
Chicago, Ill.	Jane Addams Houses	1,027
	Julia C. Lathrop Homes	925
	Trumbull Park Homes	462
Cincinnati, Ohio	Laurel Homes	1,039
Cleveland, Ohio	Cedar-Central Apartments	650
	Lakeview Terrace	620
	Outhwaite Homes	579
Columbia, S. C.	University Terrace	122
Dallas, Tex.	Cedar Springs Place	181
Detroit, Mich.	Brewster	701
	Parkside	785
Enid, Okla.	Cherokee Terrace	80
Evansville, Ind.	Lincoln Gardens	191
Indianapolis, Ind.	Lockefield Garden Apartments	748
Jacksonville, Fla.	Durkeeville	215
Lackawanna, N. Y.	Baker Homes	276
Lexington, Ky.	Aspendale	
	Blue Grass Park	286
Louisville, Ky.	College Court	125
	LaSalle Place	210
	Dixie Homes	633
Memphis, Tenn.	Lauderdale Courts	449
	Liberty Square	243
Miami, Fla.	Liberty Square	243
Milwaukee, Wis.	Parklawn	518
Minneapolis, Minn.	Summer Field Homes	464
Montgomery, Ala.	Riverside Heights	100
	Wm. B. Paterson Courts	156
Nashville, Tenn.	Andrew Jackson Courts	398
	Cheatham Place	314
New York, N. Y.	Harlem River Houses	574
	Williamsburg Houses	1,622
Oklahoma City, Okla.	Will Rogers Courts	354
Omaha, Nebr.	Logan Fontenelle Homes	284
Philadelphia, Pa.	Hill Creek	258
Caguas, P. R.	Caserio La Granja	75
San Juan, P. R.	Caserio Mirapalmeras	131
Schenectady, N. Y.	Schonowee Village	219
Stamford, Conn.	Fairfield Court	146
Toledo, Ohio	Brand Whitlock Homes	264
Christiansted, St. Croix Island, V. I.	Bassin Triangle	30
Fredriksted, St. Croix Island, V. I.	Marley Homes	38
St. Thomas, St. Thomas Island, V. I.	H. H. Berg Homes	58
Washington, D. C.	Langston	274
Wayne, Pa.	Highland Homes	50

Federal Housing Administration

STEWART McDONALD, Administrator

WHEN the Federal Housing Administration closed its books for the fiscal year ending June 30, 1937, it completed a period marked by significant advances toward the objectives imposed by the National Housing Act—the creation and implementing of a mutual mortgage insurance system and the encouragement of improvements in housing standards and conditions.

Gross business transacted by the Federal Housing Administration from the beginning of the program up to June 30 totaled approximately \$1,750,000,000. This included mortgages selected for appraisal, commitments to insure large-scale housing projects, and modernization and repair notes insured.

Home mortgages selected for appraisal reached a total of \$1,140,000,000 at the end of the year, with approximately 280,000 individual mortgages having been submitted for examination and valuation. Of this total, mortgages amounting to approximately \$644,000,000 were selected for appraisal during the past fiscal year.

Commitments have been issued on large-scale housing mortgages in the amount of \$29,000,000. Five of the projects have been completed and mortgages amounting to \$4,315,000 have been insured. Commitments are outstanding on 30 projects which are either under construction or will be started in the near future. Completed projects provide accommodations for 1,317 families, and those under construction or in process will contain 6,889 individual family units.

On April 1, 1937, those sections of Title I of the National Housing Act relating to the insurance of short-term, modernization and repair loans were terminated. Prior to the expiration of the plan, the Administration had insured approximately 1,450,000 loans amounting to \$560,000,000. In addition to loans actually insured, the Administration has evidence that its program has generated a large volume of modernization and repair work paid for in cash or financed by other methods.

It should be borne in mind that the Federal Housing Administration lends no money. The business on its books represents advances of funds by private lending institutions. The Administration acts as an insuring agency, protecting lending institutions from loss on long-term and short-term funds advanced.

Total operating cost of the Administration to the Federal Government, since the beginning of its program, is \$28,575,000. This does not include losses on modernization credit loans in default, which are paid from a separate fund established by the National Housing Act. Up to June 30, these claims, less collections and notes reinstated, amounted to approximately \$5,500,000.

The National Housing Act originally provided a fund of \$200,000,000

for the payment of losses on insured modernization loans. At the suggestion of the Administrator, this amount was reduced in April, 1936, to \$100,000,000 and the amount of insurance reduced from 20 per cent to 10 per cent of the amount of loans made. It is thought that after all claims for insurance under Title I have been liquidated, at least \$75,000,000 of the fund available for the payment of claims will not be needed.

A large proportion of the operating expenditures of the past three years can be classed as non-recurring expenses. In this category can be grouped costs incurred in carrying out the modernization program, from which the Administration received no revenue and which has now expired, as well as the costs incident to the establishment of the Insured Mortgage System. This latter part of the Administration's program is permanent as well as revenue producing. Several of the insuring offices in the larger population centers are now producing sufficient revenue to pay their expenses. In time the whole Administration should be self-sustaining, with an adequate reserve for losses.

The Mutual Mortgage Insurance Fund of the Federal Housing Administration now stands at nearly \$19,000,000. Revenue from mortgage premiums and appraisal fees is being received at approximately the rate of \$500,000 per month. May collections reached a high point of \$525,000. This fund which is designed to care for the payment of possible net losses under the Insured Mortgage System, includes an original \$10,000,000 appropriation provided by the National Housing Act.

On June 30th, 29 properties covered by insured mortgages had been conveyed to the Administrator following foreclosure proceedings by the mortgagees, with debentures issued in exchange for the 29 properties amounting to \$121,136. Already 14 of the properties have been sold, with a net loss to the fund of less than \$5,000. Debentures amounting to \$30,770 have been retired on seven of the properties sold, leaving total outstanding debentures as of June 30th in the amount of \$90,366. If the experience of the Administration in the past two and a half years is any criterion, the fund should prove adequate to meet all demands.

An analysis of mortgage loans insured during the past six months reveals the part played by the Administration in stimulating the construction of new homes—one of the objectives of the National Housing Act. At the time the Federal Housing Administration was established, the home-building industry was producing approximately 50,000 single- and two-family dwelling units per year. By the end of last year, residential construction had increased to approximately 270,000 one- and two-family dwelling units per year, and the present year has been marked by still further gains.

Mortgages on new homes have accounted for approximately 56 per cent of the value of mortgages accepted for insurance during the past year. A significant fact revealed by the semi-annual report is the \$280 decline in the value of the average new construction mortgage accepted

for insurance in the first six months of 1937 as compared with the average mortgage on houses under construction accepted during the first half of last year. Although an increase in the average value might have been expected, in view of increasing construction costs and other factors, this year's average loan is \$4,613 as opposed to last year's average of \$4,893, during the January-June period.

The decline in the average value of new construction loans has been accompanied by a 94 per cent increase in the number of new construction mortgages accepted, as compared with the same months of 1936. These two facts point definitely to the success of the Administration's small house program, launched approximately a year ago.

Mere figures do not adequately describe the Federal Housing Administration's accomplishments in improving housing standards and conditions, a field in which it has made significant contributions. The Administration's Technical and Underwriting Divisions have concentrated their major efforts, recently, in the field of improving standards of residential construction and eliminating speculative land subdivision.

Speculative building of shoddy houses was one of the major causes of the last real estate debacle. Thousands of families had purchased overpriced, badly constructed houses which deteriorated rapidly and were a constant source of expense. When faced, during the days of the depression, with the sacrifices necessary to maintain mortgage payments on unsatisfactory and unattractive homes, thousands of home owners found the struggle unprofitable and surrendered their homes. This condition produced wide-spread distrust of home ownership and led many lending institutions to abandon the making of mortgage loans.

In laying plans for the Insured Mortgage System, the Federal Housing Administration devised a technique designed to prevent the insuring of loans on "jerry-built" houses. Property standards were set up for the country as a whole, and provision for their observation was established by the system of architectural inspections during the course of construction.

Recently the Administration has prepared and established minimum construction requirements for each of its state and district offices, to facilitate the approval of cases, and to adapt nation-wide standards to needs and practices of the building industry in various parts of the country. It should not be supposed that the establishment of minimum construction requirements has resulted in the lowering of standards of home construction. It has been found that in every State in which these requirements have been applied, there has been an immediate and definite improvement in construction methods, particularly in the construction of small, inexpensive houses.

Improvement in standards of small house construction is due, in large part, to the program which the Administration has carried out following the publication of its Technical Bulletin, No. 4, "Principles of Planning Small Houses," more than a year ago. Meetings of builders, bankers and

developers have been held in centers throughout the country. Administration technicians have discussed with large and influential groups connected with the building industry the benefits of applying sound principles of planning to the design and construction of moderately priced and low-priced houses. This program has undoubtedly influenced methods of small house construction beneficially.

Concurrently with its conferences on design and construction, the Administration has carried out a subdivision program which has had three main objectives: First, stress has been laid upon the need for the application of sound land planning principles to the development of subdivisions, particularly those designed for small houses. Secondly, the Administration has urged owners of partially developed neighborhoods, blighted during the depression, to improve their properties and place them in salable condition. Thirdly, it is attempting to discourage the further subdivision of suburban land until the present stock of residential building lots has been utilized.

Technically, the Administration cannot and does not exercise any "control" over the subdivision of land. In actual practice, however, it has been able to exert considerable influence upon the growth of new subdivisions, by the expedient of refusing to insure loans in neighborhoods which do not offer elements of attractiveness, stability, continuity and freedom from deteriorating influences for a long span of years.

During the past year, the Administration has been asked to insure loans in 1,200 subdivisions, of which 80 per cent were partially developed prior to the depression. Examination has proved that while many are desirable as residential neighborhoods, a large number fail to offer facilities equal to minimum standards set up by the Administration.

While the Administration cannot insure loans in these neighborhoods, as they stand, it has found that in 60 per cent of the cases, at least, a few changes would transform the subdivision into a highly desirable neighborhood, conforming to subdivision standards of the Administration. Wherever this appears possible, a list of suggested changes is submitted to the owners. In some instances, only changes in deed restrictions are recommended. In others, substantial changes and improvements, such as the installation of streets and utilities, or the changing of the layout of the subdivision are necessary to make their properties acceptable to the Administration.

Although the Administration stresses the desirability of using the vast stock of building lots already available before new lands are subdivided, there are instances in which new neighborhoods are found to be necessary. This is particularly true in the case of subdivisions for small houses. In many centers where an oversupply of certain types of lots exists, there are few subdivisions suitable for small houses. The Administration has found it desirable, in such cases, to insure loans in new small house subdivisions.

To stress the importance of well-planned neighborhoods, particularly those for small houses, the Administration has conducted a series of conferences throughout the country. It has also published a pamphlet, "Planning Neighborhoods for Small Houses," Technical Bulletin, No. 5.

To carry this program still further, and consolidate the gains made, the Administration has employed recently several trained land planners who will be attached to offices in the various operating zones of the country. These men will examine subdivisions and aid developers to solve their problems.

In the field of statistical and economic studies and surveys, the Administration is making definite advances toward the clarification of many of the facts necessary for the proper understanding of the mortgage lending field and the operation of the Insured Mortgage System.

Finally, in aiding in the recovery of the building industry, the Administration has been instrumental in restoring to prosperity, corporations, companies and individuals deriving their income from home building. The lightening of the relief rolls of the country by the re-employment of the hundreds of thousands of men now employed directly or indirectly in the construction of homes, and the increase in revenue to the government from firms which for the first time in many years are operating at a profit, should be weighed in measuring the success of the Administration's program. When these facts are taken into account, it appears that the money spent by the Federal Housing Administration has been well invested.

Activities of the Federal Home Loan Bank Board

JOHN H. FAHEY, Chairman

ON July 22, 1932, with the approval of the President, Congress created the Federal Home Loan Bank Board and directed it to establish a Federal Home Loan Bank System. In the ensuing three years Congress passed several additional and amending acts greatly expanding the responsibilities and powers of the Board so that it is now charged with the administration of four distinct activities of major importance in the field of urban home finance. The four agencies of the Board are the Federal Home Loan Bank System, the Federal Savings and Loan System, the Federal Savings and Loan Insurance Corporation and the Home Owners' Loan Corporation. Coördinated as these are under the supervision of a single Board, these agencies have been a helpful factor in the recovery of savings and home ownership, and have provided leadership and support for major reforms in thrift and home finance.

The *Federal Home Loan Bank System* is made up of twelve regional Banks which provide a reservoir of credit for home-financing institutions in much the same way that the Federal Reserve Banks serve the commercial banking field. Institutions of the savings and loan type, savings

banks and insurance companies are eligible for membership in the System. As of May 31, 1937, there were 3,859 such members with resources estimated at \$3,375,000,000. Credit is available to members in the form of both short and long-term advances at low interest rates. Since its creation the System has made total advances amounting to \$323,000,000 of which \$153,500,000 was outstanding on May 31, 1937. Of the \$150,000,000 capital stock of the banks which has been paid in, the Secretary of the Treasury at the present time holds approximately 80 per cent.

Through the coöperation of member institutions and their confidence in the credit reserves available through the Banks, the System is helping to promote a greater stability than the urban home mortgage market has ever known. In addition it provides nation-wide facilities for improving home-financing practices and raising construction standards. Taking advantage of these facilities, the Board has obtained the assistance of architects, contractors and other construction experts to organize a practical program for the proper planning and supervision of home construction. This Federal Home Building Service Plan includes guidance and supervision of home building by the local lending institution from the selection of the site and design through to completed structure. The Plan has been developed and tested during the past two years with the coöperation of the twelve banks and leading member institutions. It has now been perfected to the point where it will soon be made available to all member associations.

On June 13, 1933, Congress established the *Home Owners' Loan Corporation*, the only temporary agency to be placed under the supervision of the Board. It was designed to supply immediate relief on a large scale in an emergency situation which found hundreds of defaulted home owners losing their homes through foreclosure each day while existing home-financing agencies were powerless to take action. The Corporation was authorized to exchange its bonds, guaranteed as to principal and interest by the United States Government, for defaulted home mortgages, recasting them as 15-year amortized loans on a direct reduction basis with a low annual interest rate of 5 per cent. When the Corporation ceased lending on June 12, 1936, it had made 1,021,587 loans for \$3,093,288,213; it thus refinanced and saved from foreclosure one out of approximately every six owner-occupied mortgaged urban homes.

The Corporation was able not only to bring about needed relief to home owners, but it also arrested the rapid fall in home values throughout the country. The savings of the people were protected at a vital time by extending financial aid to lending institutions and getting money into circulation. In coöperation with the RFC, the Corporation was able to place over \$500,000,000 in circulation to the direct benefit of small depositors by taking more than \$500,000,000 of mortgage loans, which otherwise would have been foreclosed, out of the closed banks of the country. Mortgages in excess of \$1,000,000,000 were taken over from

building and loan associations, savings banks and similar institutions, more than \$500,000,000 from the commercial banks, and more than \$1,000,000,000 from individual lenders, mortgage companies, and miscellaneous lenders in the country.

Since it ceased lending on June 12, 1936, the HOLC has been in process of liquidation with its activities devoted almost entirely to the collection and servicing of loans and the management of properties. As of May 31, 1937, 17,830 of the Corporation's loans had been repaid in full—a total of \$39,131,009. Of total interest and principal instalments matured up to April 30, 1937, 82 per cent, amounting to \$695,482,000, has been paid. In those cases where all efforts to collect the loan are clearly unavailing, the Corporation proceeds to acquire title, and as of May 31, 1937, it had acquired a total of 39,837 properties; about 9,000 by voluntary deeds and the remainder by foreclosure. The Corporation liquidates acquired properties as rapidly as is possible without interfering with recovery in the real estate market. Prior to sale, such acquired properties are managed in accordance with sound real estate practices. Wherever necessary, properties are reconditioned in advance of sale or rental.

The legislation which in 1933 created the HOLC, also charged the Board with the responsibility for chartering and supervising *Federal Savings and Loan Associations* in territories not adequately served by established lending agencies. The statute likewise provided for the conversion to Federal charter of qualified state-chartered associations. In addition, Congress appropriated a fund of \$850,000 to enable the Board to carry out its federalization program and to promote and encourage local thrift and home-financing institutions in general.

Federal Savings and Loan Associations are locally owned, mutual institutions under private management and Federal supervision and have been developed according to the best principles of building and loan operation. They are characterized by use of direct-reduction loans, uniform investment and lending practices, provision for a bonus on long-term investments, progressive accounting methods, and insurance of investment shares by the Federal Savings and Loan Insurance Corporation.

From the date of the issuance of the first Federal charter in August, 1933, through May 31, 1937, 1,270 Federal associations have been chartered, 622 of which represent conversions from state-chartered institutions. The combined assets of all these associations amount to about \$893,000,000. In addition to the wide-spread influence of the uniform Federal plan of operation on general building and loan practice, these associations have been one of the most active elements in the rehabilitation of mortgage lending. Since the inception of the program they have made total mortgage loans of about \$450,000,000 and in the first five months of this year alone it is estimated that they have loaned approximately \$130,000,000.

Federal associations have received material aid under an amendment to the Home Owners' Loan Act which empowered the HOLC to invest up to \$300,000,000 of its funds in the shares of Federal associations and eligible state-chartered institutions as well as in obligations of the Federal Home Loan Banks. The major part of the \$172,000,000 which HOLC had disbursed as of May 31, 1937, in such investments was held in Federal associations. This was in addition to \$49,000,000 which had previously been invested in Federal savings and loan shares by the Secretary of the Treasury.

The *Federal Savings and Loan Insurance Corporation* was created June 27, 1934. It was designed to meet the need for insurance of share investments in sound savings and loan institutions, a service similar to that afforded commercial banks by the FDIC. All Federal savings and loan associations must by law be insured, and insurance is available to other savings and loan associations, homestead associations and coöperative banks which meet the standards of operation required by the Board.

The FSLIC insures the safety of individual investments up to a maximum of \$5,000. Through May 31, 1937, it had insured accounts in 1,720 institutions, providing protection to 1,449,525 investors. The Corporation has had but one loss of \$2,024.87. Collections of premiums are now being made at a rate in excess of one and a half million a year. Up to May 31, 1937, the Corporation had accumulated reserves of \$2,103,802.

The experience of the Insurance Corporation has demonstrated that the savings and loan investor prefers safety and a moderate return to a higher dividend rate with the possibility of loss. Insurance of the accounts of an institution almost invariably has resulted in the elimination of withdrawal lists and a renewed flow of savings from private investors. The abundance of mortgage funds which insured institutions have been able to command by payment of only moderate dividends has enabled them to pass the benefit along to borrowers in the form of more liberal terms and lower interest rates.

The Central Housing Committee

. . . . an informal coördinating body not authorized to speak officially but useful in bringing about intelligent research and exchange of ideas—and a better understanding of the problems involved. . . .

FREDERIC A. DELANO, *Chairman*

Daniel C. Roper	DEPARTMENT OF COMMERCE	Lyman J. Briggs
Stewart McDonald	FEDERAL HOUSING ADMINISTRATION	Miles Colean
John H. Fahey	FEDERAL HOME LOAN BANK BOARD	Ormond E. Loomis
Eugene Leggett	NATIONAL EMERGENCY COUNCIL	Geo. H. Daniel
C. J. Peoples	PROCUREMENT DIVISION	N. Max Dunning
E. H. Foley, Jr.	PUBLIC WORKS ADMINISTRATION	Howard A. Gray
John Lansill	RESETTLEMENT ADMINISTRATION	Warren J. Vinton
John W. Slacks*	THE RFC MORTGAGE COMPANY	George B. Williams

HORACE W. PEASLEE, *Secretary*; DON K. PRICE, *Personal Assistant to Chairman*

. . . . composed of executives, with their alternates, from various Federal agencies concerned with housing construction and finance; together with their principal technical assistants, functioning informally through sub-committees and auxiliary groups of specialized interests and elastic membership which exchange data and experience and make generally available the result of joint studies.

SUB-COMMITTEES WITH THEIR CHAIRMEN AND SECRETARIES

Appraisal and Mortgage Analysis (a Joint Committee)	FREDERICK M. BABCOCK HENRY E. PRICE	FHA RFCMCo
Design and Construction (with five Reference Groups)	PIERRE BLOUKE STERLING R. MARCH	HOLC PROC
Land Use and Site Planning	FREDERICK BIGGER	RA
Law and Legislation (with two Sections)	HORACE RUSSELL DAVID A. BRIDEWELL	HLBB HLBB
Operation and Management (with two Sections)	GEORGE B. WILLIAMS CHARLES F. O'NEAL	RFCMCo FHA
Procedure and Administration (with three Sections)	ORMOND E. LOOMIS	HLBB
Research and Statistics (with two Sections)	ERNEST M. FISHER EARL L. EDWARDS	FHA FHA

Address: 7032 North Interior Building, Washington, D. C.

Central Housing, Sub-Committee, Group and Section Assignments

APPRAISAL AND MORTGAGE ANALYSIS

—a joint committee of head appraisers from three Federal agencies and of leaders from three private professional organizations; established to accumulate and to distribute appraisal data and to deal with other problems in the appraisal and mortgage analysis fields, including the promotion of an annual appraisal forum.

*Resigned; successor not designated.

DESIGN AND CONSTRUCTION

—a sub-committee of principal technicians of housing and other construction agencies, studying, through specialized technical units, experience and practice in dwelling design, construction, and equipment, the relationship of these elements to livability, cost, and maintenance; the development of technical housing research and the compilation and utilization of results to provide maximum housing accommodations, and value at minimum cost.

Construction Costs Reference Group:—a sub-division, to evaluate data on construction costs and cost estimating, and to make recommendations for improved estimating procedure.

Planning & Design Reference Group:—a sub-division, to study experience and practice in building design; its relationship to livability, cost, and maintenance; determination of standards. See "Land Use and Site Planning."

Structure Reference Group:—a sub-division, to study structural practices and their effect on livability, cost, and maintenance.

Mechanical Equipment Group:—a sub-division, to study experience and practice with respect to mechanical equipment; to recommend improved practices in specifications and installation.

Special Group on Bureau of Standards Program of Technical Research:—a sub-division, to cooperate with the National Bureau of Standards, in the development of a joint program of technical research in materials, equipment and methods of low-cost housing construction, with specialized units for Methods & Practices; Equipment; Materials.

(Reference groups on landscape design and construction and on specifications are in process of organization.)

LAW AND LEGISLATION

—a sub-committee composed of the General Counsel of housing and related agencies: assembling, digesting, coordinating and disseminating information on laws and legislation; regulations, ordinances and codes; decisions, rulings and opinions; contracts and other legal forms affecting home ownership and housing.

—a sub-division, *Legal Briefs Section*, composed of attorneys, inventorying and cataloging pertinent briefs and memoranda in the files of member agencies and facilitating exchanges.

—a sub-division, the *Legal Digest Section*, issuing a monthly digest of pertinent current decisions, opinions, regulations and orders; proposed Federal legislation; and articles and addresses.

OPERATION AND MANAGEMENT

—a sub-committee of management principals engaged in coordinating management policies and procedures and in integrating plant design with plant operations: concerned with multi-unit groups and with extensive individual holdings.

—a sub-division, *Maintenance and Operation Section*, of maintenance specialists concerned with inquiry into operating and maintenance costs and the analysis of findings for the benefit of site planners, designers, constructors and operators.

—a sub-division, *Accounting Section*, of research accountants engaged in studying accounting problems incidental to housing management and in the development of a uniform account classification.

LAND USE AND SITE PLANNING

—a sub-committee composed of technical planners and economists from five agencies to study large-scale planning as differentiated from Design-and-Construction planning-of-buildings studies.

PROCEDURE AND ADMINISTRATION

—a sub-committee composed of member principals and alternates, established to provide for the exchange of information on rules, regulations, instructions and operating procedure so that each agency can have for reference, information and summaries useful in its own work; and to study housing needs, opportunities and accomplishments of Federal, state, municipal and private agencies in the United States and in Europe, with particular reference to the relation of central and local governmental agencies, the needs met by different methods of operation, public relations, and the functioning of the different organizations.

—an auxiliary sub-committee *Federal Housing Functions*, specially designated by CHC principals, to define and align opposing viewpoints on housing policy and procedure.

—a sub-division, *Production Costs & Price Levels Section*, of principals concerned; to study and report on problems of advancing costs in relation to housing production.

—a sub-division, *Rural Housing Section*, composed of Agriculture, Farm Credit and Resettlement representatives, to report on present and possible rural program.

—a sub-division, *Variation in Standards Section*, composed of technicians specially designated to report on relation of varying standards to agency policies.

RESEARCH AND STATISTICS

—a sub-committee of research principals from housing and other agencies; assembling and evaluating basic or specific housing data; recommending or supervising surveys and studies; exchanging opinions and results obtained from separate investigations.

—a sub-division, *Foreign Housing*, organized with staff specialists from housing and other agencies to assemble, translate, analyze, and make generally available information on foreign housing.

(Technical sections having to do with specialized branches of housing research are in process of formation.)

—a sub-division, *Library*, composed of librarians from housing and other agencies; assembling bibliographical data on housing; digesting housing material of interest: publishing the Index-Digest.

General Observations on Current Sub-Committee Undertakings

Appraisal and Mortgage Analysis

This joint committee of government and organization officials has, as its ultimate goal, the establishment of a National Appraisal Bureau, to serve as a clearing house for appraisal matters. The efforts of the Committee are at present concentrated upon the promotion of its first annual National Appraisal Forum, the theme of which will be appraisal

data, both urban and rural. In addition, the Committee is stimulating the compilation of thorough bibliographies of writings on appraisal questions, urban and rural, originating in American and in the principal European countries.

Design and Construction

A survey of the Federal Government's housing undertakings from war-time activities to more recent and current developments indicates the need for some centralizing agency to insure continuity of effort and the salvaging of worthwhile technical experience for application to present problems. This Sub-Committee, with its reference groups, acts as a clearing house for design and construction data, experience, and techniques, and agreements on basic procedures, between the various housing agencies and between them and housing research undertakings, such as are now being developed with the Bureau of Standards. The latter contact provides not only an extensive program of general research but a series of technical round tables for meetings of minds on current technical problems.

Land Use and Site Planning

This Committee, which is composed of planners and economists, has held half a dozen meetings since its organization in January, 1937, in which it has been feeling its way toward the organization of a broad-gage study relating to the field of its special interests. The outline for such a study has now been completed and is under consideration for inauguration during the summer months.

Law and Legislation

The work probably of the greatest importance before this Sub-Committee at this time consists of a draft of a proposed uniform mortgage and mortgage foreclosure law. This subject is one which presents the utmost of legal obstacles and holds possibilities of improving the situation in reference to the conveyance of real estate and offers possibilities of accomplishing economies in financing real estate which are important. It is a subject which has been studied by the American Bar Association for many years and it is a matter of great importance that lawyers interested in the public welfare should draft such a law.

The Sub-Committee is working also on the draft of a uniform land title registration law and is making a study of centralized tax payments and foreclosure of tax liens. If such uniform laws can be produced and passed, they will save money and time in the entire housing field.

Operation and Management

In all housing projects, the costs of maintenance and operation consume a substantial share of the rent income. This Sub-Committee is seeking to reduce such costs. Studies have been begun to provide the designers and constructors of housing projects with specific data relating to design causes and cost effects.

In the field of management accounting, a uniform classification of

income and expense accounts has been completed and a supplementary study has been undertaken to provide information which will make it possible to increase the effectiveness of operations by adequate, but not elaborate, records and control forms.

Procedure and Administration

The principal item on the current agenda of this Sub-Committee is a special study of material and labor fluctuations disproportionate to income changes in that section of the population by which housing is most greatly needed. Recommendations are also expected on the general problem of rural non-farm housing.

Research and Statistics

As a major part of its current program the Sub-Committee is calling together various groups having specialized interests in different phases of housing research for the purpose of discussing their mutual problems, and ultimately of forming new sections to continue specific activities. Another important item is the stimulation of University interest in housing research. The most beneficial work of the group continues to be the exchange of research and statistical housing data among the members and the agencies which they represent.

LIST OF SUB-COMMITTEE PUBLICATIONS

- Activities and Organization of Federal Agencies Concerned with Housing. (Out of print.)
- Principal Federal Agencies Concerned with Housing,—A page-summary of functions and limitations. (Out of print.)
- Services of the Federal Government to Home Owners and Tenants. (Out of print.)
- University Research in Housing as a Field of Serviceable Study.
- Housing Research Activities in 40 Universities.
- Catalog of United States Public Documents for Use in Housing Research.
- Foreclosure Procedure and Moratorium Legislation.
- The Problem of Slum Areas.
- Administration of Tax Payments.
- Loan Closing and Title Procedure.
- Bibliographies:
- 1: Methods of Housing Finance in the United States and Abroad.
 - 2: Coöperative & Joint-Ownership Housing in the United States and Abroad.
 - 3: Limited-Dividend Housing in the United States.
- British Government in Housing.
- A Glossary of Housing Terms.
- Comprehensive Housing Legislation Chart (by States).
- "HOUSING"—Index-Digest (16 issues): semi-monthly.
- Legal Digest (33 issues): once a month.

The Government's Yardstick for Real Estate*

WALTER H. LEIMERT, Los Angeles, Calif.

The Government wants: These are new words in America. But we hear them now every day. The Government wants this in banking, and the Government wants that in the stock market, and the Government is going to do so-and-so in home building, and the Government has its yardstick for electricity—

Maybe it rubs you the wrong way. European Governments may step in and tell you how to run your business as a broker, or subdivider, or lender on real estate. But in this country the idea is new. It gets your goat!

Well, I am a subdivider, and have as good a goat as anybody, but when we began hearing about what the Government wanted, it occurred to me that finding out just what it was, exactly, might be good business.

And here is one thing the Government wants, very clearly and sensibly, and I believe it is going to change subdividing, and the broker's business, and the lender's business—and entirely for the better:

The Government wants young people to have the opportunity to buy a home, not after they have saved up a large down payment, but right after marriage, while earnings are still modest. It must be a home that fits their pocketbooks, whether wage-earners or salaried people. They must have plenty of time to pay for it; twenty years or more, if necessary. It must be free from the threat of foreclosure—in hard times a shelter, and in old age an anchorage. And finally, it must be not only an honestly built home, but in an honestly built community—a district so well planned, and protected, and financed, that it will stay that way, and increase in value, instead of sliding down hill, as so many subdivisions have done in the past. That is what the Government wants from me, as a subdivider, and it is expressed in the Federal Housing laws and administration.

But really, it is the American people who want this. The hard times have taught them to seek greater security. The Government is simply giving expression to their desires. And this isn't particularly American, because we find the Governments of Europe assisting their people to get pretty much the same thing, in different ways.

The demand for better housing is world-wide. We are dealers in housing—the subdivider manufactures the site, the broker is a distributor, and the bank or other lending institution puts the power of capital behind this thing that we say the Government wants, so that the American people can get what they want. As I read over this description of what the Government wants, I find that it makes a very good advertisement

*Condensed from an article prepared for the California Real Estate Association.

for what I have been manufacturing. And I also find that it is about what subdividers have been promising their customers for more than one generation, but not delivering to them.

For years, I have believed that *permanence* is the cornerstone of a good subdivision, and now the Government is telling my potential customers to seek permanence when they buy a home. Which means, that the Government is going to let some of the fly-by-night competition off my back.

What does this mean to the broker? Well, he often has to go to the lender, to complete his sales. This idea of permanent values gives the lender a new yardstick, but it also requires that he make more favorable loans on properties that measure up to the new requirements. Dealing with lenders is going to be easier, provided the broker learns to use the new yardstick.

What does it mean to the lender? Go ask him! In every bank, mortgage and life insurance company, and other lending agency, you will find tremendous activity. Where realty loans were made for a short term, now they are being made for ten, fifteen and twenty years, and sometimes more. The Government wants those young people to move into a secure home. And it wants the lender to move in with them, and live there until the loan is finally paid off. The wise lenders are all getting ready to do this, because they see that it is what their customers want.

Not so very long ago, it was possible to borrow up to 80 per cent of the market value of stocks, but not more than 40 per cent of the appraisal value of real estate. Today, this is exactly reversed. You can borrow up to 80 per cent on real estate, while the limit on stocks is 40 per cent.

The outlook for real estate the next few years is bright, and over a longer period should be even brighter because these new laws and standards are bringing greater stability into landed property. These favorable loans are obtainable only on property with established value, and in neighborhoods with elements of permanence.

From now on, I believe, real estate is going to be bought, sold, traded and pledged, not with the hope of a speculative rise in market price, but on the basis of the *use* that can be made of it, as land and buildings. Which means that we are going to deal with a more intelligent class of purchasers, and behind them there will be a more sophisticated loan expert, who will give them the benefit of his knowledge—he will have to do that to protect the longer loans he makes.

This new state of affairs all starts with the subdivider. He is the manufacturer. His product is home sites—what we call “lots.” He must put into them a new quality and wearing value, upon which the lender and the broker can do business.

Some years ago a friend said, “Leimert, when you subdividers sell a lot, you put a sign on it, ‘Sold.’”

“That’s right.”

"Considering some of the subdivisions, I've often wondered why you didn't put the sign on the customer's back!"

And he was right. Think of the scores and scores of subdivisions that have been sold to the public, for several generations, on the assurance that each was "One of the finest residential tracts in the community." And then look over any community, and try to find these ideal residence neighborhoods—which are simply not there.

A fine residence neighborhood means wise and lasting restrictions, good building standards, honest street work, beauty, livability, permanence and increasing values.

For many years, subdividers have been manufacturing lots, and selling them for billions of dollars, but the number of subdivisions that have lived up to these standards are so few that in any American community you can easily count them on the fingers of one hand.

Good subdividing should begin like any other type of manufacturing—with a thorough market study of the potential customer, what he needs and what he can afford to pay for it, and what he wants to do with it after his purchase. A market study of the average community will show, first, that only 50 per cent of the heads of families are able to purchase homes.

About 35 per cent of all heads of families, with incomes under \$2,000 a year, can afford homes costing not more than \$3,000 for land and house—and a good many buy under that figure. Then, there is another ten per cent whose incomes range from \$3,000 to \$5,000, who can afford to pay \$6,000 to \$12,500. Finally, a scant five per cent have incomes that permit paying more.

The subdivider must know what group he intends to manufacture for, and also its family budget—what it can allow for food, clothing, automobile, recreation, education, savings. Into that budget he must fit the kind of house and lot that can be paid for without hardship.

If he plans and sells too expensive a home, there will be disaster later on. And what the Government is trying to do is, help the homeowner buy within his ability to pay, and require the lender to check and double check that ability to pay, so that the whole transaction will turn out happily for everybody in 15 or 20 years. When the market study and subdividing are right, then the loan can be made for a very long period, and will come out right.

The depression did a great service to the real estate business. For it taught people to look on real estate, not as something to make them suddenly rich, but as something to use, like a car or any other equipment. The depression revealed false values everywhere. Residence property once desirable became hard to sell. Rooming-house districts adjoining business districts, where property was held in the belief that business would come in and enhance values, were definitely recognized as slums, never to come back. Boulevard shopping frontages held at high prices

were marked down when their extremely limited usefulness was realized. Unsound subdividing of past years, and generations, revealed the shortcomings that made blighted areas.

The depression showed us that many families had been persuaded to buy homes beyond their income, on the promise of enhancement in value—those homes were foreclosed. It also showed us, clear as a lightning flash, that the neighborhoods which suffered the least were intelligently planned, both in the type of property, and the type of owners—intelligently laid out, and built up, and maintained, to provide good neighborhood life.

The new rise that has begun in real estate is based on these values. Let us look at some of the things that make value for the home owner, the business people who serve families, the community, and also for the real estate man, and lender. A lot is a liveable place only as it has streets, highways, trees, recreational facilities, schools and other things that compose the setting.

We all know the complaint of the people who telephone that boys are playing baseball or football in the street, or the vacant lot next door. There is no other place for the boys. We ask them to stop, telling them we know how it is. The well-planned subdivision would provide a place for football. We might say that the Government wants boys to play!

We are only beginning to understand streets. Old blighted districts downtown which never come back are killed by inadequate streets, as much as anything else—streets planned for the traffic of other days. Some comparatively new districts are blighted because, while they are centers for a large shopping population, and attract merchants, the layout of streets, and lack of parking places defeats their very end—shoppers cannot get there in their cars without entering heavy traffic, and have to walk too far from parking places.

In a new subdivision the retail sites have been located, not on one main boulevard, but just off several main highways, with ample parking space for the future. Shoppers come in their cars on main highways, turn out of them, never get into heavy traffic, and step from their cars into the shops.

Trees are a very important accessory of a subdivision, and when they are set out with inspiration, as they were in Beverly Hills, add beauty and value to the neighborhood as the years pass. Few subdividers yet know how to use trees.

Our customers are coming to us now and asking about these things, and the banker is educating them to use-value. The Government is educating them, too, through the banker and other lenders, by legally setting standards for the loan. They are asking new questions about residence lots, and houses. They are asking questions about income property, whether it be a duplex in which they will live themselves, or multiples like apartments.

In the past, too many such properties have been spotted here and there, in the hope that they would pay.

In the future, they will be located on population and income studies, where they are needed, and instead of the familiar "flat" injected into a neighborhood of individual residences, to its harm, and often without profit, we will see the multiple idea carried out in groups of buildings.

I need not point to the advantages for the broker, because such properties will be more attractive, easier to rent, manage, borrow upon and transfer.

Where the people go, there retail business must go, and many stupid mistakes of the past will have to be corrected in store and service sites. Just as there are a definite number of families in a city who have incomes that make them potential purchasers of homes within a certain price range, so there is a demand for a certain amount of retailing where they go to live, and we have been overestimating that amount for years, and depending on rise in values to return profit to the merchant, instead of on the use-value determined by his sales of merchandise.

Market studies for each type of retail business are highly important today, because the trends are away from downtown congestion, to outlying shopping centers. These centers, unlike the downtown district, draw little trade from outside. They live on near-by patronage. The convenience of the location, and the arrangement of the buildings, will determine success.

How many grocery stores, markets, novelty stores and service stations will be needed? How much frontage? How many theatres, and what seating capacity? And so on.

Advance studies will answer those questions, and also explain something that the broker knows only too well—the enormous turnover of retail store property, and the rows of empty stores in many cities. The belief that demand for retail stores had no limit has led to the blighting of many districts, the drop in real estate values, the deterioration of streets and buildings, and the arrears in taxes.

In the past, we have been governed chiefly by immediate profit, and paid not enough attention to economic facts. But facts are our masters, and sooner or later we were due to surrender to them, and be guided by them, and now that day is here. Our business is ruled by supply and demand, like every other, and overproduction can ruin it.

Subdivider, broker, lender and purchaser, we are all concerned in providing healthful, attractive neighborhoods, and secure homes, and in ridding our communities of conditions and areas that cannot be tolerated in twentieth century America.

They say the Government wants it—because we all want it!

The Alley Dwelling Authority for the District of Columbia

JOHN IHLDER, Executive Officer, Washington, D. C.

THE task assigned The Alley Dwelling Authority is to rid the National Capital of its characteristic slums, some two hundred inhabited alleys located in all sections of the "old" city. As a corollary it must assure the rehousing of those families whose dwellings it demolishes.

Some of the inhabited alleys are in decadent neighborhoods, some are in otherwise good residence neighborhoods, some are in sections where the street frontages are devoted to business. Consequently the reclamation of each square is a distinct problem; no general rule for redevelopment can be rigidly applied. Obviously, low-rent housing would be inappropriate in many squares.

During the past year, however, the Authority has carried to completion two low-rent housing projects and has let contracts for two others. Three of these are designed for Negroes, one for whites. The reason there are three designed for Negroes to one for whites is that the inhabited alleys are occupied almost exclusively by colored people.

The alley houses are, as a rule, the most dilapidated and insanitary in the city, and, as a consequence, bring the lowest rentals. A large part of the poorest element in the population is Negro. So Negroes tend to occupy the lowest-rental dwellings. There are, of course, exceptions. Some of the poorest people crowd street houses. Many street houses are as unfit as are the alley dwellings, though they command a higher rental because they are on a street and for that reason are more desirable.

Frequently these deteriorated street houses are in the same square as an inhabited alley and, almost equally as frequently, the street houses near the principal entrance to the alley are in the worst condition. As the Alley Dwelling Act permits the Authority to take property additional to that in the alleys, it has been possible to get rid of some unfit street dwellings.

Extension of the Authority's work was made possible by an additional allocation of \$250,000 in March, 1937. Because of the brief time between the making of this allocation and the close of the fiscal year on June 30, part of the additional sum could not be effectively used and so was necessarily returned to the Treasury. There remains to the Authority's credit, however, a capital sum of \$865,825.00, all of which has been invested or committed.

As the primary function of the Authority is to rid Washington of its alley slums, and as these slums occupy the interiors of squares whose surrounding streets may be occupied by business buildings or may be devoted to other uses incompatible with low-rent housing, the Authority has sold some of its acquisitions and has redeveloped several others for



This apartment, constructed by the Alley Dwelling Authority, and now opened for occupancy, was built to compensate for the demolition of alley dwellings in other squares. The building is one of two 15-unit structures. All doors open on a pleasant central grass plot.

Courtesy Alley Dwelling Authority



Dilapidated wooden alley houses located in the square immediately west of the apartment development. These houses are being acquired by the Authority and soon will be demolished to make way for a more effective development of the land they occupy.
Courtesy Alley Dwelling Authority

such purposes as a repair shop, automobile storage garages, and, in one case where the site may later be required for a Federal Government building, as an open automobile parking lot. If the Government does decide to use this site, it may be acquired without paying for new buildings that must be razed. Meanwhile, the parking lot rental pays a fair return on the cost of the project.

Inevitably the most difficult part of the Authority's task is assuring proper rehousing for those whose dwellings it demolishes. So far as there are vacancies in acceptable privately owned houses, these are availed of. Moreover the Authority takes every opportunity to urge private builders to erect low-rental dwellings. But despite this there is a serious shortage, especially for Negroes and more particularly for Negroes in the lowest income group. Consequently, the Authority must itself build for them. Restricted by the Act under which it operates to squares that contain inhabited alleys, it is finding this an increasingly difficult problem. These squares are in built-up sections of the city, so, with few exceptions, the land is fully occupied. The exceptional locations where there is some vacant land in an alley square are being utilized.

The two completed low-rent housing projects are providing interesting data that will guide the Authority in its future developments. The first, Hopkins Place, consists of 23 two-story, four-room and bath, one-family row houses. The second consists of two three-story apartment buildings containing thirty apartments. The apartments contain two, three and four rooms and bath.

In Hopkins Place, eleven of the dwellings are old buildings that have been reconditioned. Inevitably, they involve compromises. Their purpose was to demonstrate what can be done with the hundreds of old, unfit dwellings now existing. In six of them bathrooms were installed with a consequent diminution in the size of the rear bedroom—which, however, still complies with legal space requirements. In five of them the outdoor toilet was retained, though completely rebuilt and equipped with a modern fixture. The other twelve dwellings are new. All have abundant light and air, all have hot and cold water, all are heated with stoves. The new houses are larger than the old, and their rooms are larger.

In the apartment house the rooms are of more than legally required size (they average 11'0" x 13'4") and all apartments have cross or through ventilation. All rooms get direct sunlight except three. They have steam heat and mechanical refrigeration—the impracticability of carrying coal, ashes and ice through the public halls prevented the use of stoves and ice-boxes as in Hopkins Place. As a result the rents are higher. The new four-room houses in Hopkins Place rent for from \$25.00 to \$28.75 per month, the difference being due to corner location, size and difference in equipment. The apartments rent for \$25.00 for two rooms (living-room—kitchen and bedroom), \$30.00 and \$32.50 for three rooms (living-room, separate kitchen and bedroom) and \$35.00 for four rooms

(two bedrooms). All rents are based upon operating costs and repairs plus obsolescence, 3 per cent interest on total investment, taxes and insurance.

The evidence seems to be that the apartment-house type of dwelling is inherently more costly than the one-family house type and that it necessitates more costly equipment and larger operating costs. On the basis of this experience the Authority is now constructing a second one-family row house development and another apartment-house group that will be only two stories high. This eliminates some costly features required by law for three-story buildings. Next year, with more experience, conclusions will be more definite.

The significance of this work in the District of Columbia was recognized by Congress during its debate on the Wagner-Steagall Housing bill which became the United States Housing Act of 1937 on the last day of the session.

When introduced in February this bill was designed primarily to promote construction of new low-rental dwellings, slums being given only incidental consideration. Senator Walsh of Massachusetts, who had presided at most of the hearings on the bill, was so impressed by the discrepancy between the emphasis upon new construction in the bill and the emphasis upon the need for slum elimination by many of those who appeared at the hearings, that he determined to change the bill so it would accord more nearly with its stated purpose. He therefore secured amendments that require slum clearance, defined in the new Act as "the demolition and removal of buildings from any slum area," as part of a community's public housing program so far as that program is financed by Federal funds. As illustrative of the soundness of his proposal he cited the work of the Alley Dwelling Authority, "before" and "after" pictures of whose projects he displayed on the walls of the Senate Chamber.

Though the bill as thus modified became primarily a slum "clearance" measure, it still does not go as far as the Alley Dwelling Act which is a slum "reclamation" measure. Moreover, the Act's definition of a "public housing agency" would have prevented the Alley Dwelling Authority from sharing in its benefits because the Authority is a creature of Congress while the definition contemplates that the "public housing agencies" shall be creatures of the States. So Congress inserted a section authorizing the President to make available to the Alley Dwelling Authority such sums as he deems necessary to carry out the purposes of its Act.

Three years hence, when Congress must consider renewal of authorizations for loans and subsidies, there may be interesting evidence as to the comparative effectiveness of "clearance" *vs.* "reclamation" in terms of results achieved and of net cost.

REGIONAL PLANNING

Why Regional Planning?

EDITOR'S NOTE.—Dr. B. M. Woods, as presiding officer at the session on Regional Planning, stated that for purposes of discussion, regions were to be considered as units larger than individual States. He thought that the program might be oriented as representing the neighborly effort of groups to work together in regions of common interests and in regions of common problems, with the object of finding solutions which must be applied by the democratic method of coöperation.

NEW ENGLAND*

JAMES M. LANGLEY, Chairman, New Hampshire State Planning and Development Commission

IN New England the answer is simple. New England States have always found it natural to compare notes, and on occasion to work concertedly. So it was the natural thing when the six States undertook planning officially, that their planners should meet and organize a voluntary regional commission.

This regional organization violates no governmental bounds. It creates no new governmental units. It is suspended somewhere between local and Federal arenas. It recognizes the joint sovereignty of the States and the Federal establishment. It has no powers whatever. Its duties are whatever it may determine. Its authority is only that of persuasion.

New England has always been considered a natural region, yet when its economy is studied it is found that regional and state bounds are violated by the bounds of watersheds and by the bounds of its agricultural, industrial, mineral, forestry and recreational areas. The arbitrary political bounds are no more confounding than the criss-crossing of the bounds of its economic areas.

Practically there is no likelihood that state bounds will be altered, and despite the pronounced and continued trend towards vestment of all political authority in a central government, abandonment of state bounds as limits of some sovereign jurisdiction remains a very remote possibility. So New England reasons that because planning must be made effective by governmental action the States should be recognized as proper planning areas and that interstate planning problems should be met by agreement or compact and through the promotion of better regional and interstate public relations, with Federal participation kept at a minimum.

New England has no illusions about discovery in this generation or any other of some profoundly simple solution to all the problems of mankind. It does not consider planning a final answer. It recognizes in the word two characteristics principally—economy and coördination. The regional planning commission is essentially a means to better

*A paper presented to the National Planning Conference, Detroit, June 1, 2, 3, 1937.

coördination. Economy depends upon the extent to which state and local legislatures and administrative agencies accept recommended plans, and the degree to which these plans can be said to be economical.

There is a saying attributed to Buddha which describes the New England attitude:

God feeds the sparrows,
But he doesn't put it in the nest.

This philosophy of intensive industrialization and the concentration of population in large cities has been undermined somewhat as a general New England conviction, but it persists to a surprising extent in the region.

Its acceptance can probably be traced to the fact that New England has no natural resources which it can trade for indolent ways of life. It has no oil, no coal, no natural gas. It has no rich ores. Its stones are luxury products in a competitive market. Its forests and its fisheries have been decimated by time. Its agricultural production was never lush. It does possess a most healthy climate, its setting is scenic, and it has water power. Its people have had to scratch for their living.

The agricultural census of 1935 revealed something of the extent to which this still is done. New England studied the possibilities of public-sponsored subsistence homesteads conscientiously early in the depression. It became convinced that the standards sought were not yet economically attainable. But New England people by the thousands devised their own scheme for subsistence homesteading and went back to the land for partial or complete support, at least until the economic storm should pass.

Many of these people are living in what planning authorities would describe as sub-standard homes or shacks. Sponge baths do instead of tubs, hot water comes from a teakettle instead of a tank, toilet facilities are crude but serviceable, tar paper keeps out the wind without a covering of decorative clapboards and paint, banked sand insulates foundations, water comes from home-made wells, rooms are small and often crowded. Yet these people have preserved their pride and self-respect, they have remained resourceful, they have helped society in general to weather hard times, and they are still convinced that they are only entitled to what they can contrive. All the subsistence homesteads the government might have built would have provided for only a small fraction of them, would have held out probably futile hopes of ultimate ownership to those few, and might have made the others more restless than hard times alone have done.

New England planners are slow to approve socialized experiments. The average Yankee isn't much interested in first impressions. He likes to study new things or new people, to observe them and make up his mind slowly. It is a process of depending upon second thoughts, a process which New England believes is or should be an inherent part

of planning. Contrariwise, once sold on an idea the New Englander stays sold pretty well. This follow through is also a valuable adjunct of planning in the opinion of New Englanders. Waste is prevented at both ends. That is planning economy.

So New England isn't making any sensational plans. It knows it must build freeways, radial traffic arteries which will improve its transportation facilities and reduce traffic hazards and the heavy casualties it has. Studies made by the regional commission have influenced recognition of this fact and already the beginnings of such highways are discoverable. In one instance the commission succeeded in getting local authorities to relocate a through highway to Cape Cod so that it went around the City of Providence instead of through it. A new artery is being built out of the New York metropolitan area. The commission is having some success in convincing highway authorities that new roads, properly planned, and located outside of settled areas are much more economical to build than is a program of widening existing highways which when finished still will not be freed of many traffic hazards.

New England is convinced that planning must be supported from the bottom rather than suspended from above. It is a slow process, this business of establishing good planning practices in the political subdivisions. But New England isn't impatient. It is convinced that steady plugging along a straight line of action gets one farther faster than hopping back and forth from left to right as the cycles of business activity and politics occur.

The device of compacts is ordinarily considered a bit cumbersome, but New England prefers this approach to flood control and four of its States are in process of ratification of Merrimack and Connecticut river watershed compacts. The regional commission has done much towards education of the general New England public to the problems involved. There is great value in sifting such plans through state legislatures, in giving everyone an opportunity to be heard on the subject, no matter how well informed he may be. It is part of a logical process of educating the general public to planning practices.

What New England does not want is the establishment of Federal planning authorities within its region, similar to TVA. It doesn't wish to live according to ready-made plans handed down to it by some remote government. It prefers to pursue a policy of self-help in planning.

New England isn't ungrateful for the help which the National Resources Board and its predecessors have extended. It believes such a board should be made a permanent Federal fixture. But New England does want to make up its own mind as to plans which affect it. New England still likes to feel that its people are a free people, that democracy with all its loose ends is still a better form of government than any other which has been devised.

New England sees in planning a device for eliminating some of

democracy's loose ends but it doesn't expect planning to become fully effective overnight.

All this may sound a bit boastful and non-coöperative, in so far as the rest of the country is concerned. It isn't intended to be so for New England is sincere in these attitudes. It has existed 300 years in the face of all sorts of obstacles and through its adaptability has constantly readjusted itself to a changing national and world economy. It has weathered the recent depression in far better shape than most of the country, but this storm was only one of a long series through which New England has passed.

It accomplished the transition from an agricultural to an industrial economy before much of the nation was settled. It has let more than a third of its once tilled lands revert to forest growth without Federal help. It diversified its industry when the South industrialized and took a good portion of its textiles away. It has accomplished decentralization of industry to a greater extent than perhaps any other region. It has gone farther towards liquidation of assets destroyed by economic shifts than much of the United States.

In so far as planning may contribute to the disintegration of self-reliance among the people whom it is intended to benefit it is not good planning. New England doesn't disparage improved standards, which means the creation of more wealth. It thinks the fact that even in 1929 this country created only enough wealth to provide each family with an average of \$2,800 worth has some significance. That suggests about how much we can afford to have in any one year if we would not eat our seed corn and cripple our opportunities to have as much each year thereafter and possibly more with good management and good luck.

So we look on planning as essentially a means to better management, a conservative way of doing things, and not as a medium for the overnight arrival of the millenium.

THE PACIFIC NORTHWEST*

R. F. BESSEY, Consultant, Pacific Northwest Regional Planning Commission

THE Pacific Northwest is a particularly logical field for regional planning. It has clear-cut regionality, which, of course, is not perfect, considering all of the tests. But the Pacific Northwest does constitute an unusually coherent subnational region. This conclusion is inevitable when one considers all the geographic, economic, political and cultural factors. This subject is discussed at greater length in the report on regional planning in the Pacific Northwest, published by the National Resources Committee as Regional Planning—Part I.

Regional planning is especially important to the Pacific Northwest

*Condensed from a paper presented at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

because of certain distinct and critical regional problems whose solution depends on study, understanding, plans and programs in many branches of government. Such planning is needed to insure that these problems are considered in their entirety, in responsible and coöperative fashion by the many concerned, and not just academically by a very few.

These regional problems are those involving assets, the wise use of which will lead to material improvement of the regional and national economies and those which threaten serious economic dislocation. There are also the immediate problems involved in assuring prompt integration of large public works into the regional economy, with adequate economic and social return from public expenditures.

Generally speaking, we may state as a logical, generalized objective of, or reason for, regional planning in the Pacific Northwest, the attainment, through better conservation and use of physical and human resources, of a broader, more diversified and more secure regional economy. Fulfillment would result not only in raised regional standards of material and cultural life but also, as stated hereinbefore, in broad improvement in the national economy and standards.

Elaborating somewhat, such objectives involve an approach to a *more nearly* complete regional self-sufficiency. They involve a reduction of the disparity between the values produced in the region and those retained in, or redistributed to it. They involve finding means of equitable redistribution to the region of wealth drained from it by the mining of resources and by the disparity in trade terms—that is, through the relatively low return for materials exported from the region, and the relatively high costs of finished materials imported into it. They involve utilization of regional resources so as better to serve the regional population, and, in view of the great potentialities of some of these, better to serve a larger proportion of the national population.

Within this broad regional problem just outlined, there are several major problems, all requiring immediate planning and action. Some of these should be mentioned as being important reasons for regional planning in the Pacific Northwest.

There is a problem of land settlement, greatly accentuated by the marked influx of settlers during recent years. It has been estimated that approximately ten thousand new farm families settled in Washington, Oregon, Idaho and western Montana during 1936. It is probable that the increase in urban population in recent years is also in excess of normal rates. With adequate development and conservation, the region can support, at relatively high living standards, a considerably larger population than at present. National, as well as regional, population and land-use problems and programs will call for an extensive regional program for the reclamation of suitable land, for rural settlement, through irrigation, drainage, diking and clearing. And yet this program must take into account and not conflict with such other

economic uses of land and water as forest production, recreation, wildlife and so on.

To absorb new population to regional and national advantage will also require the higher development in this region both of basic and manufacturing industries. The basic industries are not so desirable in themselves because they tend to be absentee-owned and to make a relatively low contribution to local income and business, but are an essential foundation for the development of secondary industries which employ larger numbers and more skilled personnel at higher scales, and which pay dividends within the region. Such an industrial development is, of course, the necessary complement to the rural and agricultural development which is already tending to accelerate. It is also an important means of providing an essentially better balance in the regional economy.

The forest resource and its dependent industries are of almost inestimable value to the region. They provide a tenth of all regional payrolls and over half of the manufacturing payrolls. Their indirect effects greatly swell the total of regional dependency upon forests for economic activity and stability. In transportation, for example, more than half of the freight traffic originating in the region is forest products. Yet this resource, constituting about half of the remaining softwood supply of the United States, is currently being depleted at about three times the rate of growth, a condition which constitutes a serious threat to the regional economy. At these rates the marketable timber may be practically exhausted in little more than a human generation. It is obvious that means must be found to save this important source of subsistence and wealth for region and nation.

The water resources furnish another compelling reason for regional planning. The Columbia River drainage, including large parts of all the Pacific Northwest States, as well as British Columbia, involves distinctly regional problems in the use of water for irrigation, navigation, power, communities and industries. The development of the region's ample water power is looked upon hopefully as the key to the broader regional industrial development already touched upon. Use and control of the water resources are also highly important in bringing about the essential land-development program. As the region is semi-arid in considerable part, irrigation is the mainstay of agricultural stability and agricultural community prosperity. Finally, trunk waterways will be a factor in providing the lower-cost transportation essential to increased industrial and general development. These various uses of water inevitably involve conflicts, and hence require coördination and planning.

Fisheries support unusually important industries and recreational activities in the Pacific Northwest. It is necessary to plan to sustain these resources in the face of changing conditions, such as new obstacles to migrating fish, increasing stream pollution, and increasing demands upon the resource.

Improved transportation in general is required as a logical corollary of the general development outlined. In addition to water trunk lines, providing primarily for bulk materials, improved and modernized land transportation will be required for services to heavy and light industry, distribution and communities. The maximum practicable coördination of all of the means of transportation, including the air, is a planning problem with important regional aspects.

Recreation also involves important regional planning problems. In addition to its imponderable human values, it has direct economic values of a high order. Its sale must be looked upon as one practical and effective means of bringing wealth back to the region from the larger financial and population centers in which it has tended to become concentrated under the present regional economy.

Public works must be listed importantly among the "whys" of regional planning. Properly planned, they may be motivating forces in economic and social advancement. In fact, they may be considered as one of the few available means, under our system, of bringing about desirable economic changes. From the regional viewpoint, they must not only be looked upon as foundations for economic betterment but as direct and indirect means of essential redistribution of wealth to the region.

It has seemed necessary to skim through these more important regional problems in order to demonstrate the principal reasons, from a regional and national viewpoint, for having regional planning.

There are also impelling reasons from the state viewpoint for maintaining regional planning.

The boundaries of States are not necessarily or even usually economic and social boundaries. Problems relating to resources and their conservation and development are not often closely related to state lines. Many major public works involve, in their execution, legal, financial and other powers beyond the scope of the States. Many such works are definitely of interstate location or nature.

Coördinate action is then required between States in the solution of many physical and economic problems, such as the development of the Columbia River system for navigation, irrigation, power, flood control; pollution of interstate waters; and the conservation of fisheries in coastal and interstate waters. In such matters as these, close coöperation between the State and the Nation and between groups of States is essential. Regional planning provides a means of more closely linking the state and Federal governments in continuous consideration of resources and their development.

The organizational and administrative reasons for regional planning might be elaborated. It may suffice, however, to repeat that regional planning work is essential to a responsible over-all consideration of all resources and to the coördination of planning activities of various agen-

cies with respect to the beneficial utilization of these resources. Without the intermediate level, much of the essential work and responsibility may be neglected as a result of falling between the national and state planning organizations.

Some of the things that need to be done in the regional resources field should be mentioned. In general, they will not be done without organized regional planning. The problems heretofore outlined should be studied coöperatively in the region, and ways should be found of conserving resources, overcoming deficiencies, improving conditions and searching out new lines of progress. Reports should be made and public information programs developed. In order to effectuate plans it is necessary that the representatives of the Federal Government, the States and the public be informed as to conditions and agree as to action.

It is my own impression that the greatest task of regional planning (and also national, state and local planning) is the effectuation of planning coöperation—the coördination and synchronization of plans. This nearly always involves compromise.

Obstacles to the process of harmonizing plans for the future are found not only in group interests, but in characteristics of government itself. Established governmental agencies, naturally enough, have strong feelings of self-sufficiency. The habits of self-sufficiency, as well as the force of direct responsibilities, make it more difficult for such organizations to take on joint, intangible responsibilities relating to conservation and development as a whole and requiring coöperation with other agencies. Similar obstacles to broad regional and national consideration of resource problems may be found in the organization, traditions and habits of state government.

Regional planning must have a strong foundation in all of these diverse interests in both Federal and state government and in various civic and business groups. It must also be responsive to fundamental public opinion, so far as the latter can be gaged.

If it is granted that the most important single objective in planning is the creation of a coördinated attack on pressing problems, it may then be assumed that the most important tools of regional planning organization are the means with which to do this job. These may be briefly reviewed:

A regional planning organization of broad, representative, catholic and flexible character. Only an organization with such characteristics in greatest practicable degree will have the breadth of intelligence, knowledge, experience and outlook to consider the diverse problems and plan with authority for a large area or population. I think an adequate regional planning organization will have three essential parts: (1) governing board, (2) advisory technical group, and (3) staff.

The board should be compact and representative of both Federal and state planning agencies.

The advisory group should be broadly representative of the important

technical and other interests in various resources, and of Federal, state, business, educational and general public interest. It should be flexibly organized into appropriate technical divisions or committees.

The staff should have a small, but adequate, professional and disinterested executive, administrative and technical nucleus. It should also include a number of specialists, each primarily concerned with one of about four or five major resource groups; for example, (1) natural resources, (2) other physical resources, (3) welfare, (4) government, who would aid corresponding groups of advisory-technical divisions. The staff setup should be flexible, with provision for adding, temporarily, by direct employment or loan from other governmental agencies, specialists as required for specific studies.

Another essential feature of regional staff organization is continuous, resident national and regional planning liaison in each state planning agency. This is in addition to similar liaison of the national organization within the regional scheme. In the Pacific Northwest the state and regional consultants have formed an informal technical board acting in an advisory relationship to the Regional Planning Commission.

In the Pacific Northwest, although there are some disadvantages as well as advantages in such an arrangement, we have leaned strongly to the view that over-all planning should be the sole responsibility of the regional planning agency—that is, the planning agency should not be directly connected with or responsible for development, construction or operating activities.

The advantage of keeping the planning organization on an over-all, disinterested plane seems most important. This kind of organization also better fits the present established Federal Government scheme in which actual development, construction and operations are in the hands of specialized agencies whose work covers the whole country.

Disadvantages of the entirely separate planning organization lie in the fact that planning is rather intangible and hence less likely to be understood, valued and supported by the public and its legislative bodies. Also, the present separate planning setup does not provide for any coördination of development, construction and operation. Without minimizing the advantages of coördination in these latter fields, coördination in planning is the most important from the standpoint of social and economic well-being and progress.

Perhaps the greatest disadvantage of the combination planning-developing-operating authority is that it would cut across the existing specialized, vertically compartmented governmental structure without certainty that the horizontally compartmented, regional arrangement would provide any greater efficiency. It will be recognized, however, that in some definitely critical subnational areas the entirely integrated attack on a regional basis undoubtedly will be most advantageous.

In addition to an adequate organizational setup, regional planning requires, for outstanding accomplishment, recognition, high standing and respect. The attainment of this desired position requires:

Permanent central national planning organization (with general features similar to those already outlined for regional planning organization);

Administrative machinery for interdepartmental coordination;

Indoctrination of administrative departments with principles leading to support of and participation in over-all planning and to greater interdepartmental cooperation, so that activities in these fields will become matters of routine or habitual procedure;

Participation in regional planning by the States, under legislative and administrative authorization.

For further discussion of the general establishment of organization for planning on a regional basis, attention is invited to the reports of the National Resources Committee on "Regional Factors of National Planning" and on "Regional Planning in the Pacific Northwest and in New England."

Of course, the present planning organization did not begin the task of regional planning, but rather that of bringing some of its ends together. Likewise, it will not complete the job, for, obviously, plans must be revised constantly to meet changing conditions, to meet the inevitable contingencies, and to correct error due to limitations of human foresight.

This planning organization does not propose to create a "blueprint" for the region. But it does hope to help in forming an essentially complete framework of desirable regional objectives, policies and programs for the principal resources and for general development and progress. In this general direction, it has carried out some studies and made some reports. However, it realizes that, in a sense, even these reports were begun in the past by other agencies and that they may not be considered complete until their findings have found wide acceptance and action programs are in effect.

In the Pacific Northwest, progress has been made in organization. As a result of the organizational work, carried out for the most part in 1934, it is believed that the region has the framework, at least, of an organization which will serve the purposes of general regional planning.

The regional planning agency has assisted in the organization and work of state planning and is, I believe, one of the factors in the relatively high and uniform progress in state planning in the Pacific Northwest.

Regional planning techniques have been developed and, while susceptible of constant improvement, are of proved workability.

Progress has also been made through the medium of studies which, it is hoped, will be of definite value in solving important regional problems.

In addition to general progress reports, studies and reports made by the Regional Planning Commission include the following:

A report on the future of the Columbia Basin and on types of development organization was prepared in 1935 (and was issued subsequently by the National Resources Committee as "Regional Planning, Part I—Pacific Northwest"). This report reviewed resources, problems, needs and possible future development of the region; the nature of Pacific Northwest regionalism; and organization for planning, construction and operation of public works in the region; and submitted conclusions and recommendations with respect to these problems;

A report and recommendations with respect to the conservation of nationally important scenic and recreational values in the Columbia Gorge in Oregon and Washington;

A report on the Pacific Northwest forest resources and its economic importance, suggesting a broad program of Federal, state, industrial and public action with regard to the country's major source of timber products;

A report and recommendations with respect to Pacific Northwest water resources and their future development. Concurrently the Regional Planning Commission and staff participated in the nation-wide drainage basin water resource study of the National Resources Committee.

In the recent fourth Pacific Northwest regional planning conference a policies committee of fifty or more members agreed, without difficulty, on a common statement of regional needs embodying views on various specialized subjects. With all the unity of general purpose that has characterized each of the regional planning conferences, a unified statement could not have been so prepared at any of the earlier meetings.

Without provision for work at the regional level, it will be very difficult to build up and maintain the interdepartmental cooperation, the Federal-state liaison, and the public contacts necessary in effective planning for broad and well-balanced national development and progress.

CAN INTERSTATE PLANS BE EFFECTIVE?*

HENRY W. TOLL, Director, American Legislators' Association, Chicago, Ill.

THE painter hopes that his picture will be hung. The architect hopes that his castle in Spain will become a reality in some more stable vicinage. The author hopes that his manuscript will be published. And the planner hopes that this plan will be followed. For an unfollowed plan has approximately the same social value as an unhung canvas, an unbuilt mansion, or a mouse-eaten manuscript.

When some of us graduated from college, research was all the rage among students of governmental affairs. Governments and foundations financed the accumulation of volumes of information, which in turn accumulated dust on untouched shelves.

Then came the God-sakers—who called for *immediate action* at any cost.

Then came the popularity of planners, who proposed a program which had more relation to the scientific method:

First, the accumulation of factual material;
Second, the formulation of a plan; and then
Third, action

But three steps were still missing. In an orderly system of government there are six stages:

1. The collection and tabulation of factual material.

*Condensed from a paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

2. The formulation of a plan.
3. The effective communication of the plan to those in authority; in other words, the effective transfer of the idea from those who know what *ought* to be done to those who decide what *is* to be done.
4. The transformation of the plan into an official program—in other words, the governmental mandate.
5. Organization for action including the implementation of the official program with money, men, and facilities.
6. The ultimate action.

Since the United States Government was established a century and a half ago, there have been a few cases in which two or three States have coöperated in the maintenance of pleasure parks. During that century and a half, there has been one instance in which two States have coöperated in the conduct of a long-range constructive program—namely, the New York Port Authority. But throughout this century and a half, there has not been a single instance of any long-range constructive coöperation concerning any matter that has been undertaken by a group of state governments.

The reason is definite: the States have not had any plan of organization to make possible such coöperation. Unless such a plan of organization can be developed, the work of planners in devising programs for interstate coöperation will be in the same category as the work of the painter of unhung pictures, the designer of unbuilt mansions, the author of unpublished manuscripts.

The Council of State Governments has undertaken the task of developing a plan of organization which will make it possible for a group of state governments to work together in a long-range program of constructive coöperation.

It may be that in the Delaware Basin the Council of State Governments has succeeded in devising a pattern of organization which will be for the state governments what the corporation is for individuals. If so, it is a matter of extreme importance to the planners.

As most of you know, two-thirds of the States of the Union have now established commissions on interstate coöperation. These commissions are to the state governments what the Ministries of Foreign Affairs are to the national governments. Each commission is composed of five state senators, five members of the state House of Representatives and five administrative officials of the State. It thus represents the legislative, executive and administrative divisions of the government.

These Coöperation Commissions of Pennsylvania, New York, and New Jersey tackled the Delaware Basin problem. Of course, the Council of State Governments is a part of the governmental structure of this country, having been created by statutes now in effect in twenty-six States, and having been vested with governmental authority by each of these statutes. I wish that I could take time to tell you the exceedingly interesting story of the evolution of the Interstate Commission on the

Delaware Basin—generally known as Incodel. Suffice it to say that such a commission was established.

The Pennsylvania Commission on Interstate Coöperation was authorized to name four members of Incodel: one senator, one representative, one planning official, and one administrative official. Similar authority was given to the Coöperation Commissions of New York, New Jersey, and Delaware, to name four members apiece. Thus, an Interstate Commission of sixteen members came into being. A seventeenth member was designated by the National Resources Committee, and an eighteenth member by the Council of State Governments.

To summarize, the essence of this pattern of organization is this: A single interstate body made up of delegates who represent Commissions of the individual States, which in turn represent the two legislative branches and the executive and administrative divisions of their respective governments.

The Interstate Commission on the Delaware Basin has its own offices in the Franklin Trust Building in Philadelphia, with a full-time staff of three members—one provided by the participating States, one by the National Resources Committee, and one by the Council of State Governments. Apparently, the participating States will jointly appropriate over \$25,000 to the work of the Commission for the coming year.

The Delaware Basin is as large as Belgium. The Delaware River is a tie of considerable importance to the States of New York, New Jersey, Pennsylvania, and Delaware. The natural resources of the basin are assets which annually provide many tens of millions of dollars to the population of the basin—a population of approximately five million people, spread over an area of twelve thousand square miles. In the past, the conservation and development of these resources has been left to individual communities, with some later participation by their state governments. Only recently have the state officials in this four-State region fully realized the extent to which the uses and abuses of the physical resources of the Delaware Basin in each State affect the localities and the citizens of the other States in the basin.

The problem of developing a new source of water supply for the City of New York brought this fact rapidly to the fore. Two years, and hundreds of thousands of dollars, were spent in settling this issue in the legal battle over the City of New York's plan to obtain additional water from New York State's tributaries of the Upper Delaware River.

In the decree of the United States Supreme Court in the Delaware River Case, the precedent seems to have been established that the future source of water supply for the Philadelphia metropolitan area, for northeastern New Jersey municipalities, or for other communities which may develop needs in the future, cannot be considered solely as individual projects, but must be thought of in relation to the use of this stream for the basin as a whole.

Even though the water needs of a State may lie in the future, they will be recognized and protected. Each State may claim its fair and equitable share of water from interstate streams, and in the allocation of such water, the first taker may not claim more than its share, thus depriving another State of its quota. In other words, our western system of prior-appropriation, sometimes known as the grab-first doctrine, will not be applied in its entirety.

Continuing emphasis should be placed upon this approach to the problems of land and water use in the Delaware River Basin, nor can too much emphasis be given to the inherent difficulties which are involved in developing a comprehensive, unified program of conservation and use for this entire area which involves, as it does, the conflicting demands and requirements, administrative as well as political, of four sovereign States and hundreds of political subdivisions.

The Interstate Commission on the Delaware River Basin, composed of legislators, administrators, and planners from the four state governments, is approaching this problem of the conservation and use of the natural resources of the basin in a broad way, working closely with the State Planning Boards, as they seek a thorough understanding of present conditions, as they project their plans to estimate their future needs, and as they undertake to determine the best uses to which their natural resources can be put.

This approach, from a planning standpoint, must of necessity be along two somewhat different but parallel roads: the one, to include those features known to professional planners as component parts of a long-range, comprehensive planning program; the other, to advance short-term projects of already known merit, clearing the way for long-range accomplishment through the development of an enlightened public opinion, and the adoption of enabling legislation.

Obviously, a comprehensive planning program for the Delaware River Basin cannot be undertaken in advance of the progress which is yet to be made in long-range planning for the individual States. But such progress, on the part of the Planning Boards in New York, New Jersey, and Pennsylvania, is being made with remarkable speed.

Progress is being made by the Interstate Commission on the Delaware Basin in the direction of viewing two major problems presented by an interstate stream, namely, pollution and water supply.

Working on the theory that the uses of the Delaware River and its tributaries can be improved, and that its abuses can be prevented only through better-informed thinking on the part of the representatives of all States involved, the interstate commission has begun to approach these specific problems of quality and quantity on a technically sound basis.

An engineer and a technical advisory committee have been named to assist the Delaware River Basin Commission in its consideration of water pollution and water supply: the former, Mr. James H. Allen, of Pitts-

burgh, has been assigned by the National Resources Committee, as further evidence of the desire of this Federal planning agency to encourage interstate coöperation; the advisory committee on engineering is composed of Messrs. H. P. Croft, C. A. Holmquist, W. L. Stevenson, and R. C. Beckett, the engineering heads of the State Health Departments of New Jersey, New York, Pennsylvania, and Delaware, respectively, and Mr. Nathan B. Jacobs, Water Consultant of the National Resources Committee for District No. 2.

This Engineering Committee met first, as a group, in Trenton, New Jersey, on March 17. It was agreed that the two outstanding tasks in the Delaware River Basin, from an engineering viewpoint, are the drafting and ratification of an interstate compact which will satisfactorily settle, on a permanently continuing basis, first the manner of preventing water pollution in the Delaware River, and second, the means by which an equitable allocation of the waters of this drainage basin may be brought about.

To determine when, how, and where treatment is desirable for sewage, industrial wastes, or other polluting matter, based on the uses to which the river is put, a subcommittee was selected composed of Messrs. Croft, Stevenson, and Holmquist.

In pursuing its task, the members of this subcommittee on quality, after collecting basic factual data from their individual States concerning existing conditions of the water of the Delaware River and of its tributaries, at their points of confluence with the main stream, including location and character of public water supply intakes and points of discharge of sewage and industrial wastes, met again in Trenton, April 22 and 23.

At this meeting, the present conditions and probably future requirements of each area were discussed in detail; agreements were reached where controversies developed; preliminary restrictions were drafted for inclusion in the proposed compact. This committee met again on May 17 and 18, in New York City, to continue this coöperative engineering planning.

The establishment of such standards of cleanliness or purity, with emphasis on the public health aspects, which would, if acceptable in the form of a compact, and properly enforced, abate and prevent water pollution, is essential to this important phase of a unified river development program.

Even more complex than quality, in considering the conflicting demands and requirements, administrative as well as political, of four sovereign States and hundreds of political subdivisions, is the problem of the equitable allocation of the waters of this interstate stream.

The importance of this question of quantity can perhaps best be illustrated by the continually talked about Philadelphia water-supply problem. Philadelphia gets its water from near-by points in the Schuyl-

kill and the Delaware rivers. Both sources are in areas of gross pollution, and although the water is made pathologically safe for domestic use by highly specialized treatment works, it is properly subject to much criticism as being largely purified sewage. These conditions are the cause of a century-old urge to abandon present sources in favor of a purer up-land supply. Many different schemes have been suggested and studied, but, hampered by continual controversy, an agreeable plan has yet to be developed.

All proposals have one thing in common, however, in that they suggest the taking of a new source of water supply either from the interstate Delaware River, or from the intra-state tributaries of that stream. In either case, such diversion would involve serious questions as to the rights of the four basin States, New York, New Jersey, Pennsylvania, and Delaware.

In appearing before a recent public hearing called by the Mayor of Philadelphia to consider that city's water problem, an official spokesman of the Interstate Commission on the Delaware River Basin stressed the following fact:

Two years, and hundreds of thousands of dollars, were spent in settling this issue (diversion of water) in the legal battle over the City of New York's plan to obtain additional water supply from the New York State tributaries of the Upper Delaware River. To prevent a repetition of this dispute, the Engineering Committee of the Interstate Commission is now engaged in studying this problem looking toward an amicable solution. This would seem to be an economy of time and money.

That statement gives a clear picture of the functions and the importance of the subcommittee on quantity, composed of Mr. Charles E. Ryder, Chief Engineer of the Pennsylvania Water Power and Resources Board, Mr. Howard T. Critchlow, of the New Jersey State Water Policy Commission, and Mr. Russell Suter, Executive Engineer of the New York Water Policy and Control Commission.

Water from the Delaware River Basin for public water supplies, termed by the United States Supreme Court in the Connecticut River Case as the highest use to which water can be put, is a particularly urgent problem. Future use for this purpose, not only for Philadelphia, but again for New York, and possibly for northeastern New Jersey municipalities, will soon have to be determined. By careful, coöperative planning on the part of the health and water-policy engineers of the respective States represented on the engineering committees named above, there should develop the sound fundamentals upon which an equitable and practical compact, satisfactory to all of the States involved, may be based.

The progress which is being made upon these two extremely important items of the program of the Interstate Commission on the Delaware River Basin, in its pursuit of a careful, balanced consideration of the

resources of the entire watershed, is clear evidence of the soundness and the value of this pattern of organization for interstate coöperation.

The Interstate Commission on the Ohio Basin, known as Inchoio, has a pattern exactly similar to that of the Delaware Commission, but with one senator, one representative, and one planning official named by the Coöperation Committee of each of the nine States in the basin. Other members are named by the Department of Agriculture, and the National Resources Committee. It was one of the most noteworthy cases of quasi-official organization in American history, since this governmental agency was established by nine States, and functioning with official delegates from all nine, within 18 days after the decision was reached to develop this Commission.

The Connecticut Valley in Massachusetts— A Regional Potential

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I. THE BACKGROUND

ONE of the basic regional unities which seems to lend itself most readily to effective planning is a river basin. Only occasionally do its geographical correspond with its political boundaries. The need for creating planning agencies to correspond with conditions imposed by natural and human resources is one of the outstanding problems of the present time. Among the rivers in the eastern United States the Connecticut represents not only one of the most significant threads of historic as well as of economic importance but also offers in its geographical background an almost ideal unit for planning purposes. It cuts across the boundaries of four States and as yet the unity inherent in its basin is unrealized. Its lower reaches in Connecticut and Massachusetts, because of historical and climatic conditions, offer a separate unit for consideration and provide the basis for a unified plan of its watershed. An outline for such a plan, in this brief study, is confined to the Massachusetts section of the watershed, and, even more narrowly, to the three river-valley counties of Franklin, Hampshire and Hampden. These three counties include a large proportion of the watershed in Massachusetts, possess historical, economic and social unity, and provide the administrative basis on which planning—of course in relation to contiguous areas—could be effectively carried out. The Springfield-Holyoke trade area includes practically all of the towns and cities within the three counties.

II. THE HISTORY OF THE REGION

The geological history of the Connecticut Valley in Massachusetts has been intensively explored. Its great age and the variety of its for-

mations make it one of the most interesting areas, geologically speaking, in the eastern part of the country. The history of settlement and the evolution of population distribution in the area is not less interesting. The river formed the original highway along which the early settlers moved north from the Connecticut colonies. The Old Bay Path which connected Boston with the pioneer settlements that marked the advancing frontier of the Old Bay Colony was a more hazardous and difficult route than the river afforded. The Mohawk Trail, one thread on which the expansion of the French domains in this country hung, following more than one bloody engagement in these frontier towns, became the first link of communication to the west for the valley towns. To a large degree this early history of hazardous and painful conquering of the rich lands of the valley and the upland country beyond explains the unity of feeling which still marks the three valley counties.

The ebb and flow of population in the area mark the changing occupational pattern of the past century. Beginning with Colonial times, settlement rapidly spread east and west from the valley bottoms to the hill towns, which became thriving centers of agriculture and local industry. This more or less even distribution of population in the upland country has been affected since the middle of the nineteenth century by the growth of large-scale industry at the water-power sites. The traveler along the upland roads or among the now deserted valley regions, which lie off the main thoroughfare of traffic, will find not only names like Bobbin Hollow, Mill River, and the like, but the mute evidence, in factory cellars and broken-down dams, of once thriving local industries which were unable to withstand the competition of the improved power and machine facilities of the rising industrial cities like Springfield, Holyoke, Westfield, Northampton and Greenfield. Similarly, agriculture, especially in the upland regions, could not continue to compete with the western staples. A double process began to transform the agricultural life of the region. On the one hand, the early diversification in the normal agricultural production of grains and other crops disappeared as many of the hill-country agricultural villages were deserted and declined practically to the level of subsistence-farming communities. On the other hand, and especially since 1870, the farmers in the valley bottoms have necessarily specialized in specific crops. Today, in the hill country, dairies and orchards provide the chief sources of cash income, while in the rich alluvial lands of the Connecticut River itself tobacco and onions are the principal agricultural enterprises, with potatoes and truck products as subsidiary cash income crops. Self-maintaining farms have completely disappeared in the region.

The area of relatively high concentration of population is in the southern third of the region (Hampden County, in which Springfield, Holyoke, Chicopee and Westfield are located) and is the center of industrial activity. It is interesting to note that this area adjoins the

Hartford metropolitan region, and suggests that future population drift, so far as it seeks an outlet in a suburban and rural environment, will be toward the north in the relatively unsettled areas (Hampshire and Franklin counties). It is important to note also with respect to future planning that many of the more interesting topographical features and as yet unspoiled village communities, such as Deerfield, lie in the northern half of the region.

III. SOME RESOURCES OF THE REGION

The three valley counties are not only rich in historical tradition, in many unrivaled examples of the best New England village planning and architecture, and in a wide expanse of varied and interesting countryside attractive to the refugees from urbanism who constitute the "backflow," but also in certain cultural advantages superior to those of any region of similar area in the country. The presence of Amherst, Massachusetts State, Mount Holyoke and Smith Colleges, and of Deerfield, Williston, Wilbraham, Monson, Mount Hermon, and Northfield Academies, as well as numerous local schools of first-rate standing, the existence of free public libraries in practically every town in the area, the historical collections, the important art collections to be found in the colleges as well as in the two Springfield museums, the location of Storowton (an important museum of early American architecture) in the grounds of the Eastern States Exposition at West Springfield (the most important country fair in the northeast), and the park areas and forest reservations, local and state, combine to make the social and cultural advantages of the region unusual. From the point of view of the future utilization of this area (as well as similar near-by areas) as a playground for the city-dwellers of New England and New York, and as an area of more permanent residence for those who will prefer this to the urbanized environment of the cities, these natural and social resources are of first-rate importance. The desirability of protecting them against the jarring inroads of acquisitive interests eager to exploit them for private ends, by proper planning and adequate zoning, requires no argument.

IV. SOME PROBLEMS IN PLANNING

A. *Communications.* The region today is adequately served with through traffic routes. Highways 2, 9 and 20 connect the region to the east and west at intervals of not more than 20 miles, while Highways 5 and 10 on either side of the Connecticut River, sections of which are still to be linked with existing highways, provide adequate north-south facilities. There is, in addition, a network of subsidiary state and state-aided highways which provide hard-surfaced roads to practically every town in the area, and open most of the beautiful and attractive natural scenery to easy access by automobile. For those desiring to escape from

the gas and noise of the main highways, many of the subsidiary roads, which today run like cobwebs across the hills on either side of the river through a countryside of abandoned farms and power sites, are passable for most of the year. The project for creating a hundred-mile "scenic circuit" developed by Professor Frank A. Waugh of the Massachusetts State College, together with the many alternative roads available all along the circuit, provides an extensive area of exploration for nature-lovers and campers. The Skyline Trail and the Laurel Way, projects undertaken by the Westfield River Parkway Association, have already opened up interesting areas in the western section of the river watershed.

The principal problem with respect to roads within the region at present is that of bypassing some of the fine old town centers so as to preserve them against the physical hazards and the blighting effects of through traffic. The bypass at Old Deerfield is an example of what can be done in other communities.

The importance of the subsidiary roads should not be overlooked with regard to the future of agriculture in the region. Either with the development of subsistence farming in the upland country or with further specialization in truck gardening, which is already becoming an important element in the agriculture of the region, the use of subsidiary roads may again become important. There are no parts of the region, however, which at the present time are sufficiently isolated from main traffic routes, to prevent the development of market farming as a basic agricultural pursuit. The growth of population in the area within trucking distance of the region will make this type of agriculture increasingly important.

As air travel becomes more important the region will come within commuting distance from New York, Providence, Boston and other New England and New York centers and will feel the effect of increased tourist and residence traffic.

The river, traditionally the main artery of communication in the colonial period, is now navigable for vessels only to Hartford, Connecticut. Various projects for deepening the channel to Holyoke have been before the Congress. It is unlikely, however, that with the network of railroads which provide two east-west and two north-south routes, the use of the river on a large scale would be economical.

B. Water supplies, sewage disposal, water powers. The impounding of a new water supply by the metropolitan district on the eastern boundaries of the region (Ware and Swift rivers) is inescapable evidence of inter-regional relationships. This project has resulted in the elimination of a half dozen villages on the eastern boundaries of the river and will become an important item in its recreational assets. It has also created problems as to power sites and sewage-disposal which have reached beyond state boundaries. The New England Regional Planning Commission is already undertaking studies of sewage-disposal problems on the

Connecticut River and, while the issue is not critical, the whole problem will have to be reviewed within the next decade. Its relation to the question of preserving the river frontage for park and recreation purposes is evident. Within the region itself the new Little River water-supply project of Springfield, with the highest earth dam in the world at Cobble Mountain, has not only created a beautiful new recreation area but marks the beginning of further water-supply coöperation within the Springfield-Holyoke metropolitan area.

While most of the power on the Connecticut River is generated outside of Massachusetts, there are important dam sites on the river at Turners Falls and Holyoke. The numerous local dam sites on the tributary rivers, developed or potential, provide the area with a large exportable surplus of power. Springfield's highly diversified industrial development and the high ratio of installed horsepower to employees in Springfield industries is at least attributable in part to easy access to relatively cheap power. It is interesting to note that there are only three townships in the three counties which are not at present supplied with electric power. Rural electrification has gone farther ahead in this region than in most, and provides, along with the easy highway communication, another factor in the possibility of decentralizing industry or of reviving local handicraft and other light industries. Flood control has become a paramount issue in the Connecticut Valley since the floods of 1927 and 1936. Study of the question by the Federal Government has indicated its essential interstate character.* Legislation has been proposed by the interested States looking to the development of interstate compacts regarding flood control, and active Federal participation is already projected. The significance of this problem to future power developments in the valley and region is obvious. But even more significant is the possibility, through effective planning of the resources of the region, greatly to increase its forest and recreation potentials. By dedicating areas necessary to flood control to public use, and by developing a comprehensive reforestation program on both public and private lands to reduce the flood menace, the whole region, not only in Massachusetts but in New Hampshire and Vermont, can be made an even more attractive one for the living and the play of future generations.

C. *Land Use.* Agriculture, as has been indicated, has become highly specialized in this region. The staple crops of tobacco, onions, fruits and dairy products and the development of truck gardening are the basic elements in Connecticut Valley agriculture. The location of the Massachusetts State College in the region, the practically complete soil-study surveys of the area which are available, the possibilities of part-time farming, accessibility to urban markets, are all factors in making agri-

*74th Congress, 1st session, H. R. 4979; Ibid, S. 203; Ibid, House of Representatives Report 1564; 74th Congress, 2nd Session, H. R. 412; Ibid, Hearing before Sub-Committee IV of the Committee on the Judiciary, House of Representatives on H. J. Res. 377.

culture more attractive in this region than in many others in the New England area.

There is an interesting transformation in farm population as well as in agricultural production. In more than one community in the valley the Yankee farmer has been displaced by the various European farm stocks, chiefly Poles, Lithuanians and Ukrainians, who have imported not only language but culture patterns from the home lands. Some are now in the second and third generation, have become prosperous on the land, have adopted American ways and are rapidly assuming places of civic leadership in their communities. Their influence on farm methods as well as on the social relations of the region, is not unimportant.

Forestry has been and is likely again to become an important use of land in the region. Practically all of the forest coverage has been cut over at least once, and, with the exception of state forests and the Massachusetts State College Forest on Mount Toby, there is at present little if any forest culture. In local lumber and wood-working industries, as well as in certain specialized timbers, the region offers a modest but not insignificant possibility for improved forest cultivation. There are a few "town forests" in the region. The Massachusetts Forest and Park Association is developing a timber coöperative scheme in Franklin County which may stimulate the revival of a small but profitable lumber industry.

The region as a whole is now provided with an unusual amount of land dedicated to public use—a factor which is likely to be important in its increasing utilization for recreational purposes by people living outside the region.

Two immediate objectives seem important with respect to parks and playgrounds.

First, a definite program for the preservation of river frontages on the Connecticut and on tributary rivers is essential. No natural feature of the region is more significant. Already in Springfield, Holyoke, Northampton, Westfield, and other communities the loss of river frontage to private uses has deprived the people of a significant asset. In the more settled communities, sections of the river front, however small, can and should be acquired for dedication to park and recreation purposes. Furthermore, a regional planning authority would be in a position to plan more adequately for the acquisition, in the less settled communities, of areas which could be purchased now less expensively than will be possible some years hence. With the slow but steady development of river conservation work, which was greatly stimulated by the floods of 1927 and 1936, and has gone forward under CWA and other Federal projects during the last four years, the possibilities for such river-front preservation have been increased.

Second, the acquisition and preservation of small areas of natural interest or beauty along or near the main highways is a matter of out-

standing importance. Such areas as the Holyoke Range, Rattle Snake Gutter, Whately Glen, Chesterfield Gorge (at present only partially owned in the public interest) are examples of the more extensive type of area which still await preservation. But there are numerous small areas along the highways, such as derelict land where curves and main roads have been straightened, which might easily be preserved as stopping places for motorists. Many of them already lie within highway boundaries and could easily be developed into attractive wayside parks, as has been done in Connecticut. The work of the Westfield River Parkway Association and other groups in this respect has already been of great significance in developing public recognition of the value of roadside amenities.

V. PLANNING ACTIVITIES IN THE REGION

With the exception of Springfield, there is no city or town planning board which has as yet become continuously concerned with the need for long-range planning as a basis for local improvements. The Springfield Planning Board has achieved a notable success, not only in protecting the basic elements of civic development through an adequate zoning law, but in projecting a far-sighted program for highway and community development, including bypass roads, parkways and playgrounds, and other public recreation facilities. The Springfield park system is outstanding among cities of its size in the country. There are signs, however, that a number of other planning boards are awakening to the necessity of adequate local planning.

There was created in 1923 the Connecticut Valley Park Commission which submitted a report to the Legislature of 1924 (House No. 1330) which reviewed some general factors of the area, included recommendations for ceding the Mt. Tom State Reservation to the national government as a national park, and ended its report with this statement: "Not only in their (the people's) interest but in behalf of the public welfare and the commercial prosperity of the whole State, the planning of the future development of this region should be soon undertaken." In 1927 a resolution was introduced (House No. 434) for the creation of a Connecticut Valley Regional Planning Board to consist of one county commissioner from each of the three counties and four other persons, one to be a landscape engineer and another a civil engineer, all to be appointed by the Governor, and to report recommendations to the General Court. The resolution was not favorably acted upon.

The New England Regional Planning Commission has stimulated a reconsideration of the whole planning problem here as in other regions of the six States. Its activities are cumulative in their effect on public interest, and its studies have already laid the foundations for effective development of regional resources.

Among private planning agencies in the region the oldest, the West-

field River Parkway Association, has done notable work in developing trails, road planning, and highway beautification in the western section of the region. The Old Hampshire Planning Council was established in 1931, has held a number of regional conferences, and is engaged in study of various projects for the future development of a physical plan for the region. A Massachusetts Division of the American Planning and Civic Association was established in 1936, and has already held one conference on regional problems in the Connecticut Valley. It projects further coöperation with local planning groups and with the planning boards already established in about 15 cities and towns in the region. The State Planning Board has also done much to arouse local interest in local planning problems, especially through its energetic support of regional conferences.

VI. THE POTENTIAL

This brief outline of the resources of the region indicates the need for a program which will integrate the scattered agencies and the varied interests of the region, in order not only to guide future development but to protect many of its significant features against loss or depreciation. Existing public agencies are too unrelated to make concerted action possible. They require the stimulus not merely of such private agencies as have been mentioned but of a public body which has both the resources and the vision to unify the region for its future development. There is sufficient mobilizable local sentiment to make possible a concerted planning program with regard to roads, parks, scenic preservation and other vital factors of community and regional value. Such public action would prove the most important factor in reviving the interest and activity of existing local planning boards, which must in the first instance, of course, be responsible for community development. The Old Hampshire Region seems an almost ideal unit for such regional development, either alone or in conjunction with the Berkshire region and contiguous areas in other States bordering the Connecticut River. The potential is significant—and realizable. What the present generation achieves of that potential will determine to a very real degree the region's human and economic values in the future.

IN THE STATES

STATE PLANNING

State Planning—1937

ROBERT H. RANDALL, Consultant, State and Regional Planning,
National Resources Committee

AS the time is here to write again an annual report of the status and progress of state planning, one is reluctant to begin by reciting the bare facts of the organization in the last four years of 47 state planning boards, five regional planning commissions, and one territorial planning board, as if these facts were new, or in themselves were of great significance. It seems necessary this year, now that 39 of these boards have been given statutory authority to continue for a period of years or indefinitely as integral parts of the state governments which they served in emergency, to attempt some estimate of the achievements and of the future of state planning.

At this point, a real difficulty appears. Increasingly, as the planning movement has spread geographically, and as it has been consciously incorporated in the programs of both private and public undertakings as a necessary administrative tool, the separation of any sort of planning from all the other sorts—as “state planning” from “local” or “national planning”—has come to seem artificial if not actually misleading. The very real dependence of governmental planning at one level upon that at another level, and of governmental planning upon private research and educational efforts, suggests that here is a task not for an observer, who happens also to be a worker in the vineyard with only such perspective as a worker may have, but for an historian. Yet historians write only about the day before yesterday, and state planning boards are not so old as that.

So, as nearly as he can, for the benefit of the many professional and lay persons who have followed the movement with interest, this observer will report briefly some of the facts about state planning boards, and some of the considerations regarding state planning in general, which would appear to have important bearing on the future of planning in the United States.

ACCEPTANCE OF IDEA OF STATE PLANNING

When, in December, 1933, the National Planning Board of the newly created Public Works Administration prepared a circular letter to the Governors of all the States, calling their attention to the desirability of setting up planning agencies at the state level and inviting them to call on the PWA for technical consulting services—partly, at least, with the experiences of the work relief program in mind—the need for some state organization comparable to the city planning commissions of the larger

or more advanced municipalities already had been felt. Wisconsin, Illinois and the District of Columbia had provided statutory authority for planning activities fairly general in scope, and in Massachusetts and Iowa the idea of state planning had taken root. The impact of movements necessarily national, such as the conservation movement then more than 20 years old, may have helped to awaken the realization that the absence of a planning agency at the state level constituted a gap of more than academic importance. At all events, the beginning of the relief and recovery program, which brought immediately both an extension and an intensification of Federal-agency planning, made very clear indeed the chasm which lay between the planning divisions of the Federal administrative agencies, and the local planning commissions scattered sparsely enough throughout the Northeast, Middlewest and West.

As has been said, the invitation of the National Planning Board of the Public Works Administration was accepted readily by most of the Governors. State Departments of Public Works, and of Public Welfare found themselves swamped by the duties and responsibilities connected with the nation-wide work and relief programs. An agency constituted to direct its principal attention to the situation in which they found themselves would be welcome. So, not only the Governors, but also many established departments of state governments welcomed the idea of state planning.

If, however, these new boards had been set up for the duration of the unusual pressure which was upon state governments, if they had been chartered for the sole purpose of preparing a public works program five, six to ten years in advance, and then allowed to lapse, the story which must be told today would be shorter, and perhaps scarcely worth the telling. The important thing is that state planning agencies were built from the beginning to endure and to house much more than the temporary activities of an *ad hoc* committee of public works planners. To make land utilization and water resources studies, and to give attention to the various transportation systems with a view to their possible integration, were duties laid upon almost all the boards as they were appointed by the Governors. A little later, when legislative bills for the establishment of the boards upon a permanent basis came to be written, still other functions and duties were prescribed, including those of coördinating the activities of many governmental departments, and of receiving and giving assistance to certain agencies outside the government.

In their several joint progress reports, the last of which was published in December, 1936, by the National Resources Committee, the boards have shown how far they have tried to go toward discharging these duties, and with what success they have met. The fact that of the 47 boards originally chartered, 39 have been made permanent arms of their respective governments, and in seven other States bills conferring statutory authority upon the temporary boards have been proposed, is more

eloquent than any other generalizations which might be made, however, on the basis of these reports. It is eloquent because passage by 39 legislatures of acts permanently establishing state planning could not have been accomplished without public acceptance of the idea of state planning, and public support of the creation of a new governmental agency in a day of many new governmental agencies is not accorded without good reasons.

What produced such wide-spread interest in and support of planning at the state level? Undoubtedly, a combination of circumstances. Larger and less homogeneous than the city or the county, the State is naturally a more unwieldy unit of democratic government than the smaller subdivisions. Not all of the issues of interest to people as citizens of the State find their way to the printed ballot. Realization of this fact brought into being many private state-wide organizations, composed of representatives of local organizations, in the fields of welfare, conservation, business and industry, and research. The state universities instituted departments for assembling and correlating various basic data from all the counties, and so helped to emphasize the reality and importance of the States as such, and as political and social units in the lives of their citizens. Other fact-gathering agencies were privately endowed to make studies of population trends and to give attention to outworn techniques of governmental administration.

With the beginning of the depression, tax commissions found their fact basis too narrow for the preparation of additional taxation proposals for the legislatures. When the Federal Government offered to purchase submarginal land and retire it from cultivation, the States realized they could not immediately point to the tracts which ought to be put into forest or to some other use, although it was known that such areas existed in almost every State. State self-knowledge was lacking.

The recovery program dissolved almost overnight the lingering belief that welfare and relief problems were purely local. The necessity for direct and immediate action, and the problem of a proper apportionment of benefits throughout the State also helped to awaken the sense of state citizenship which had been somewhat in abeyance before. During this period, the complexity of the recovery program offered by the Federal Government to the States resulted in a multiplicity of agencies and in some cases an apparent overlapping of effort, all of which brought to people generally a realization of the need for coördination. The newspapers almost everywhere seized upon the idea of state planning boards, and reported faithfully and with understanding their efforts to bring some measure of immediate order, while at the same time laying a solid groundwork for the future development of the State as a whole.

When these considerations are added to the fact that state planning was not a new idea in Wisconsin, Massachusetts, New York, Iowa and Illinois, it appears that the creation and retention of so many boards in so

short a period as the last four years does not so much represent an innovation as a next step in the orderly progress of democracy from simple to complex, from old to new.

PLANNING, THE INSTRUMENT

As a tool of representative government, the state planning boards have given excellent service under circumstances not always ideal for demonstration purposes. They have responded to requests from Governors and legislatures for analyses of physical and social conditions in the States; they have coöperated with the state universities in making detailed studies of natural resources, and with industry, and scientific foundations in making studies of economic potentialities. In most States they have been of great service to the highway, education and public welfare departments in planning programs. They have lent their constant, strong support to the movement for completing the mapping program in the United States, and have themselves made many special-purpose maps of considerable usefulness to action agencies at all levels.

These boards, as perhaps no other state department could have done, have enlisted the interest and voluntary services of the best qualified persons in the State, who have served without charge on committees studying welfare, housing, employment, taxation, conservation and other subjects of special interest to the States. Also, they have fostered the efforts of communities to institute their own planning commissions, which today number hundreds as against a few dozen five years ago. The boards have assisted local commissions by furnishing consulting services, and sometimes by preparing for them demonstration plan, sample zoning ordinances, etc. In return, the local commissions have assisted the state boards in collecting basic data for particular studies on the programs of the state boards.

In the other direction, the state planning boards have contributed to three major studies of Federal agencies: the recent national drainage basin survey and the six-year programming of public works, at the suggestion of the National Resources Committee, and the national survey of recreation needs and facilities in which the National Park Service is engaged at the present time. In all three studies, great dependence was put on the boards, with gratifying success.

One other point requires mention here. When the performance of state planning boards in the first few years of their existence is examined, it is necessary to take into consideration the fact that almost all of the staff assistance available to the boards was furnished by the Federal Emergency Relief Administration and the Works Progress Administration from the rolls of persons in need of relief. About 2,000 such persons have at one time or another been employed by the state planning boards, among them draftsmen, school teachers, research workers, architects,

clerks and stenographers. Many have now left to take private employment, equipped with new techniques or with months of valuable experience in their own professions. Others will remain to be employed by the States themselves as veterans in the state planning movement.

Under handicaps of lack of adequate financial assistance, and, increasingly, the lack of competent technical personnel from the relief rolls, the boards have nevertheless seen many of their recommendations come to fruition in action by legislative and by other governmental departments. In the future they expect to perform still greater services as they themselves are better equipped with facts, and with staff workers to apply them to emerging state problems. The legislatures have appropriated varying amounts for planning activities, but it is conservatively estimated that \$1,500,000 will be available from this source for the biennium 1938-39.

THE PLACE OF STATE PLANNING IN NATIONAL PLANNING

If state planning—the fortunate effort to bridge the gap between community and national self-knowledge—has done nothing else, it has provided an additional and much needed aid to intelligent national planning. Used here, national planning is intended to be distinguished from Federal-agency planning, or any other sort of large-area planning which is accomplished without the fullest possible reference to local efforts to define and solve local problems.

The state boards have opened a course between the localities and the Federal Government. They have gone into the field and solicited citizen opinion when this was an important ingredient of a plan or recommendation to be made. They have encouraged the establishment of local—town, metropolitan and county—planning commissions, and have called early upon these commissions for contributions of thought and effort. They have become sensitive to the emerging problems in their States—both those of general importance, and those necessarily restricted in scope to urban or rural, or industrial, areas. They have been in communication with each other, and have assisted interstate endeavors on the part of legislatures and administrative departments. Finally, they have pooled their resources for purposes of assisting the several regional planning commissions now in existence—notably the Pacific Northwest Regional Planning Commission and the New England Regional Planning Commission. And, above all, they have not lost touch with the public.

As has been pointed out, already their effectiveness has been tested and proved in the preparation of three broad-scale national plans: one relating to the provision of public recreation facilities, one to the six-year programming of public works, and one to use and conservation of water resources. Without the state boards, these surveys could not have been made in the limited time and with the limited funds available.

Picture the situation which existed when the first national planning agency, the National Planning Board, began its work in 1933. Many problems of national import needed study and action. A number of these were easily obvious to the national planning group in Washington. Various Federal agencies, through their representatives located not only in Washington but throughout the country, were able to implement the national planners: to supply information on needs, problems and attitudes of the people throughout the nation, as they knew them from individual and departmental experience. Committees were formed for study of land, water, minerals, transportation and other problems. These were quite largely composed of representatives from the Federal agencies most obviously concerned.

It seems, however, not unfair to ask whether planning done by any national board which placed its dependence quite largely upon the operations of other Federal agencies for its contact with the people, would not be colored by the Federal viewpoint. Another tool, to provide information and representation of the needs of local and state government, was certainly desired. And so the idea of state planning boards was presented to the States and has been sedulously fostered.

Presumably the best use of this new tool of state planning will be realized in its effectiveness for two jobs. The first is the job at the state level. Here the state boards, with national support, may be expected to continue their work of studying the problems of state development. This includes not only planning by, and for, the various departments of the States but implies that the state boards will continue to keep in contact with local planning boards and other units of government—town, city, county and districts—within their borders.

The second job which the new tool can help to accomplish is the conversion of Federal planning into truly national planning. The state planning boards can supplement the information and the operations of the Federal agencies and through their studies and recommendations can bring to national planning a local and state viewpoint which can be secured in no other way. Whereas, in the past, most of the studies of the national planning agency have been of a general character, covering the nation as a whole, it may be expected that in the future problems of less than national area but truly national importance may be posed by the state and interstate planning boards, brought to the national board's attention and pursued to the point of definite recommendations by co-operative action by national, regional and state boards. It seems not too much to hope that with the tool of state planning, originally forged by the Federal Government's national planning board, and kept sharp by the interests of the national and state boards, will be used effectively to shape the course of national planning toward an increasingly beneficial program for the nation as a whole.

Critique of State Planning

EDITOR'S NOTE.—Miss Elisabeth M. Herlihy, Chairman of the Massachusetts State Planning Board, who presided at the State Planning session of the National Planning Conference, quoted a happy, light-hearted remark of George Bernard Shaw to the effect that it was absolutely futile for us to say that Christianity was a failure because it had never been tried. She thought that we could almost say as much for State Planning—that it had not been tried very much. There had been a great deal of field work and a great many facts accumulated. There had been more or less of a competition among state planning boards as to who could produce a bigger and heavier volume; but she thought that the real test of state planning and the real test of state planning board members would come when it was necessary to try to transfer some of these facts into action, based on definite plans and recommendation for state development.

I APPROACH STATE PLANNING*

HENRY T. MCINTOSH, Chairman, Georgia State Planning Board

ANY consideration of state planning in Georgia necessarily must deal with planning that is to come. There has been considerable city planning in the State, some of it good. The East Georgia Planning Council, WPA staffed and with consultant direction furnished by the National Resources Committee, has made excellent progress in developing a regional program for seventeen coastal counties in Georgia and three in Florida.

But not until two months ago were efforts to secure legislation for state planning successful. Both Governor E. D. Rivers, who assumed office last January, and the legislature which convened at the same time, were in full sympathy with planning, and a bill creating a State Planning Board was promptly passed and approved. Seven members, of whom four are citizen appointees of the Governor, constitute the board. It has \$30,000 of state funds for the biennium beginning July 1, 1937, and its earlier needs have been liberally provided for by the Governor out of his emergency fund.

So state planning in Georgia begins after disappointing but unavoidable delays. The penalty is loss of opportunity wherever planning might have helped government, agriculture and industry, and as a contributor to the well-being of more than three million people. A measure of compensation is the opportunity to profit by the planning experience of States having more advanced programs.

Perhaps no State presents a more inviting field for planning than this rather old southern commonwealth. While it must deal with some problems which are common to all our southern States, certain of its own are unique, needing to be approached with the realization that no proved formula for solving them is available.

It is a foolish optimism that imagines planning can solve all of any State's problems but it is a no less foolish pessimism which would deny

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

that planning offers the most hopeful approach to programs calling for radical but necessary changes in an established order.

Georgia is an agricultural State, but its agriculture is changing. It must change even more. An intimation of the nature and meaning of the transition is found in the fact that in 1936 the value of livestock raised and marketed in Georgia exceeded the value of the state's crop of lint cotton. That had never happened before in a State whose cotton was for long years its principal money crop.

It follows naturally that a state plan for Georgia must in a certain sense be pivoted on agriculture. Industrial development will be surest of success where it seeks to make use of products of the soil.

One of the Georgia Planning Board's first undertakings is a new survey of the state's pine tree resources. As never before, the planned production of certain species of pine which grow rapidly in the South Atlantic and Gulf States is seen as an important branch of agriculture. Georgia can grow, in eight to twelve years, slash pines large enough for pulp mills, and Dr. Chas. H. Harty, who is one of the civilian members of the Georgia board, has conclusively demonstrated that both craft and newsprint papers, as well as rayon, can be manufactured from Southern pine at a new per-ton low cost. Several large paper mills using pine exclusively have been built and are operating in the South. Others are building or projected, and the number undoubtedly will increase.

State and Federal agencies have fairly complete data on existing pine tree resources, but the study proposed will include acreage available for the growing of pines which is not suited to other agricultural uses; the potential production of given areas under varying conditions; such related factors as power, water supply and water analysis; labor, transportation, health conditions, markets, the location of limestone deposits, and perhaps a good deal more. The study will include also lumber and naval stores requirements, and when it is completed there will be available a wealth of information having to do with an industry certain to expand rapidly during the next few years. No such complete information is now available.

This group might not be interested in several other studies to be undertaken as initial projects, but it is in order, perhaps, to say that Georgia seems to offer unusual opportunities as a field for the practical application of the principles of planning. There are many poor people in Georgia, and they cannot improve their condition unless they have help. In the rural communities, particularly, the problem of assisting them to better living conditions presents many difficulties and discouragements. It would be risking a good deal to promise that the State Planning Board, even with the cordial support of the State Administration and the generous coöperation of private as well as public agencies, will be able to succeed where others with the best of intentions have failed. But I muster the courage to say that we shall do our best,

and that we have hopes. And, of course, fears, for it perhaps is true that the best planning board is the one that is going to do things, but has not done them yet. It is like the general staff of an army, or the board of strategy of a navy—its plans are perfect and defeat is impossible. Yet history's verdicts are made up after and not before battles are fought.

The Georgia Planning Board has been fortunate in having, through the interest of the National Resources Committee and the friendly coöperation of the Tennessee Valley Authority, the expert guidance of Mr. Earle S. Draper, Mr. Tracy B. Augur and Mr. Raymond Leonard in launching the Georgia planning ship and charting its early explorations.

We may not keep these master planners with us, but we shall keep trying. I am sure you'll wish us well.

THE FALLACIES OF STATE PLANNING—A LETTER

From P. S. LOVEJOY to WALTER H. BLUCHER*

Dear Blucher:

Yourn to hand but till today I wa'nt in shape to give you an answer. No can do.

There's certainly a nice chance in it—for someone; but I'm not IT. Matter of fact I doubt anyone might properly talk on "State-planning Fallacies" until he had witnessed some bigod cap-P Planning—& I don't think I have. . . . Prelim gettings ready to "Plan": Yes; but per se "Planning": No. (Except perhaps in relatively minor phases & items, as roads, game refuges, state-forest extensions etc.; & even so, each little branch going it pretty much solo.) Cause why I dunno for sure. Too many variables to juggle . . . lack of enough on-the-job practice . . . but I doubt them are "fallacies" (except as some of the Bretheren get real serious & actually expect sumpin to come off as per The Dope).

Right in there, like enough, there *is* a fallacy—i e expecting the budded PLAN to unfold as the rose at noon. Not yet or soon, as I callate; & the why of *that* (as per y v t) will be because Homos just can't &/or won't proceed in straight or "reasonable" lines if they can somehow go it a la water-bug & get there by indirections pleasantly non-rational, & with plenty sumpin-fer-nuthin around fer bait. Until Planners apprehend some of that, & get its essence incorporated into their "planning" processes & time schedules, I figger that State (& other) Planning is due to continue as I've seemed to note to date;—mostly mebbly-ought & palaver ad lib.

But I got no license to stand in front of a mess of bigod Professional Planners & speak up lika thet—so you gotta 'scuse me out for this time.

Y v t

P. S. Lovejoy

5/11/37 Ann Arbor, Mich.

*A letter read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

IS SOCIAL AND ECONOMIC PLANNING BEING OVER-EMPHASIZED IN CURRENT STATE PLANNING PROGRAMS?*

RUSSELL VANNEST BLACK, Consultant, Pennsylvania and New Jersey State Planning Boards

THE category specialists are at work again as evidenced by this morning's program. This time they apparently hope to foment a debate as to how many grams of "social and economic" planning added to how many grams of "physical" planning are needed to produce a well-balanced state planning program. I cannot, however, much blame the program makers because I too have heard and have been not a little puzzled by the shouting and the dead cats that have been flying back and forth over the imaginary wall between these two supposedly distinct approaches to planning.

Presumably there are some grounds for mutual concern by the specialists in these two aspects of planning but, as is the case with so many heated controversies, I suspect that the root difficulty springs from a lack of a commonly understood language and a lack of mutually accepted definitions. For purposes of this discussion, therefore, I shall start with definitions:

Physical Planning is that aspect of planning directed toward the shaping of man's environment and the utilization of natural resources to accomplish a maximum of social, economic, and physical well-being over an indefinite future period of time.

Social and Economic Planning is that aspect of planning concerned with directing man's individual and collective social and governmental pursuits toward a maximum of social, economic, and spiritual well-being over an indefinite future period of time.

Such differences as exist are those of raw materials, tools, and methods rather than those of objectives. Good physical planning must proceed, within social and economic limitations, to achieve a socially desirable and an economically feasible purpose. Good social and economic planning must proceed within physical limitations to assure to mankind the maximum of good living and the maximum of security permissible under the limitations of man's intellect and his natural resources. Physical planning finds ultimate expression in material things like houses, roads, and parks. Social and economic planning hastens the realization of such things and increases man's enjoyment of them and his security in them, when they come.

If these contentions are approximately correct, it becomes obvious that social and economic planning and physical planning are corollary undertakings neither of which may come to *full* fruition without the simultaneous pursuit of both. This does not mean, however, that progress

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

with these two aspects of planning must be uniform nor that one may not make material progress while the other lags. Neither does this mean that both must be initiated and conducted by the same agency whether that agency be a state or a national planning board. It does mean that each avenue of approach must be followed with full knowledge of the limitations, the current status, and the future prospects of the other.

Quite separate from all questions as to whether or not social and economic planning and physical planning are parts of the same thing and properly to be handled by a single planning agency, is the question of which layer of government is in best position to perform the various planning functions. To my mind, most of the basic social and economic problems of this country are national in their scope and can be successfully met only by national determination and national action. These problems include those of the stabilization of a national and world economy, the keying of production with consumption, the safeguarding of human resources against exploitation, an equitable distribution of income and of wealth, establishment of a broad social security, improvement of the processes of government, and raising the cultural and spiritual level of the people. As important as progress in these directions is to the ultimate in state planning accomplishment, it does not appear that the individual States, through planning boards or otherwise, can do much individually toward the advancement of that progress. For we are one nation and not 48 peoples. State lines are no barriers to social and economic distress nor are they walls behind which individual States may dwell in isolated security. Effectuating nationally determined plans and policies with respect to these problems, however, may be in considerable part a function of the States. Initiation of state participation in such matters may fall to the lot of state planning boards but, in most instances, it is probable that some other state agency can do the job as well and perhaps more appropriately.

Progress in the solution of such social and economic problems measures the progress of civilization. It represents the background against which are placed our plans for the control and improvement of environment and of services. To its ever-changing form our physical plans must be continuously adjusted. This background affects not so much the shape of physical plans as the speed and completeness with which certain elements of physical plans may be carried out. For the actual physical needs of the human animal do not much vary with his capacity to satisfy these needs in any given period of time. Furthermore, it is not illogical to regard this background of social and economic trends and achievement as a corollary to and as an implement of physical planning rather than as an integral part of the physical planning process. Knowledge and understanding of these things the physical planner must have but it is neither necessary nor quite to be expected that he produce

them for himself by his own efforts. (With the physical planner I include his collective self, the state or national planning board.) Many may have been created in the image of God but standard equipment, certainly, is something less than Godlike.

In other words broad social and economic planning is highly important to physical planning accomplishment but is not necessarily a part of the physical planning process. It is probably to be approached on a national rather than upon a state basis. And coupling the social and economic planning job with that of proper physical planning, in the same planning program, would seem to be almost too much for a single body of men whether comprising a state or a national planning board. Let the two operations go hand in hand. Make Siamese twins of them if you must. But give them something of separate minds and bodies.

Now I come to a rather fine distinction but one which I believe to be important. All physical planning, whether for a city, a State, or the Nation, necessarily involves many social and economic considerations related to but distinct from operative economic and social planning as I have chosen to define this aspect of planning. Population characteristics and trends, trends in industrial types and locations, occupational trends, shelter and service deficiencies, public financial capacity to provide needed services, effectiveness, and efficiency of governmental agencies responsible for carrying out the plan, and the income and tax-producing powers of localities are among the multitude of such considerations the careful study of which must be included in any well-rounded state planning program. Indeed, the broader base of departure represented by the inclusion of such factors in planning for the future development of a State is one of state planning's principal contributions to the processes of state government. You may choose to call this also social and economic planning. To me it is physical planning with social and economic validity. I will not quarrel about terms so long as we understand each other.

I think perhaps I have now confused the issue sufficiently to proceed with some safety to discuss the question assigned to me, "Are state planning programs over-emphasizing social and economic planning?" Frankly, I do not know and will not venture a guess. I would as soon estimate the speed and the endurance powers of a hobbled horse. If there is a state planning board in the country that is proceeding with full freedom of action in a completely self-determined direction, then that board and its work have not yet come under my observation. Until such free-agent boards enter the field any effort to appraise the established direction and content of state planning is likely to be both unsuccessful and unfair.

The first prerequisites to straightforward state planning are: experienced and especially qualified personnel, generously adequate funds without strings attached, and a sense of security of position in the family of agencies. So far as I know, all state planning boards have lacked and are

still lacking one or more of these prerequisites in greater or lesser degree. Some state boards are suffering the additional handicap of insufficient basic information both factual and physical. Some are impoverished in important records. Others lack such things as topographic maps, soil surveys, and air maps.

It has been necessary, therefore, for the individual state planning boards, in varying degree, to shape their work programs not in accordance with any preconceived idea of what a proper state planning program should be but to make the best use of the tools and the materials at hand. Programs have been further distorted by a consciousness of need to establish state planning, with the public and with state officials, as a useful and as a harmless operation. Valuable time and energy have gone to usually futile effort to win legislatures over to making appropriations proportionate to the size of the state planning job.

The form and intensity taken by these more or less unavoidable indications have been determined presumably by the best judgment of the individual state planning boards and their technical advisers. And judgment is a variable quality especially when applied without benefit of a well-trying body of reference.

From a distance it is impossible to distinguish between state planning board undertakings forced by expediency and work regarded by the board concerned as being a correctly evaluated part of a well-balanced state planning program. Much more than the reading of published programs and reports is necessary to an adequate appraisal of actual progress and of the actual concept of the state planning job in any State.

Superficially, and at least partly for the reasons already given, most if not all the state planning programs appear to be more or less out of balance but not especially by reason of leaning too heavily either in the direction of social and economic planning or that of physical planning. They are out of balance rather by reason of the intrusion of a great miscellany of activities and the over-inflation of individual program items. None of this is or should be surprising.

The underlying situation is one of sudden awareness of a broadly extended horizon of human problems demanding public recognition and solution. Organized state government was caught napping. There was no existing machinery for the handling of many of these problems. In the absence of a clear definition of the nature of state planning and in the absence of any preconceived notion as to the proper function of state planning boards, these boards perhaps naturally became the catch-all for all that miscellany of jobs, important and otherwise, for which there was no pre-established pigeonhole. This procedure had the saving grace of avoiding the multiplication of state commissions. But it does not follow that all things taken under the wings of state planning boards are state planning or that many of these things cannot better be done by other agencies, existing or yet to be created.

This packing of the portfolio of state planning can scarcely be laid entirely at the door of older state agencies. In most instances, it is probable that the boards and their advisers are themselves responsible. Not knowing exactly what was or should be expected of them, planning boards came nobly to the front to tackle any and every obviously worthy job that appeared to be neglected. After all, the 46 state planning boards had a most unusual birth. Most governmental agencies in the individual States have sprung from some fairly clear preconception of need and function. But many state planning boards came amazingly into being out of thin air, with first task that of finding out what they could do to justify their existence without too much nuisance. I recall the reported experience of one such board. After recovering from first bewilderment over the fact of its appointment, this board began casting about for its proper job. Unfortunate board! It found parks, highways, and institutions being planned by existing state departments. Other state agencies were directing public utilities, advising political subdivisions, and leading the farmers into paths of individual and collective salvation. But nowhere in this state government was there a central information service. This the planning board was quite free to undertake and did. This particular board has since found much additional outlet for its energies. I mention its early experience only to illustrate how like many state planning boards have been in this early state of finding their places in state government, to the student body of a new college, whose first collective act was the appointment of a "committee to frame a body of traditions."

Maintenance of good balance in a large-scale planning program is difficult under the best of circumstances. The course of large-scale planning is beset by many temptations and attractive bypaths. Particularly is this true of state and national planning, both offering great virginal fields delightfully unexplored. Planning's human and financial resources never have been and never will be sufficient to permit exhaustion of all or any possibilities of study and research. The most difficult first and continuous task of a planning agency is that of determining upon a breadth and scale of operation consistent with ultimate objectives. Variation in the personal interests, in the special experience, and in the work habits of those who make the decisions as to programs is inevitably a large factor in what items are included and in the relative weight and detailed study given to them. Here lies the most serious source of unbalance. Resulting distortion may and does extend in almost every direction. Sometimes it takes the form of disproportionately detailed study of one or more problems, sometimes of the introduction of undertakings of questionable validity. In other cases it may be disproportionate expenditure of effort upon the winning of official and public recognition, or over-emphasis upon speed in material evidences of accomplishment.

Perhaps I can make my point clearer by comparison of the state planning process with established mapping procedures. Scale and de-

tailed accuracy of maps are made proportionate to the purposes for which the maps are intended. Specifications range from those of reconnaissance surveys showing major physical features in approximate relation with one another to the precision of surveys needed for the placement of intensive urban development, for the projection of a tunnel, or for the construction of a bridge. The reconnaissance survey omits no essential items but neither does it include micrometer measurements to be plotted on four-mile-to-the-inch maps.

State planning has its beginnings in what amounts to a reconnaissance survey that includes all major considerations having bearing upon the use and development possibilities and probabilities of the State. State planning activities are deepened as objectives become more clearly defined and as resources become more adequate. The important and difficult thing is to advance this deepening process upon an even front. Disproportionately deep forays into special fields, whether they be those of social welfare, public finance, industry, agriculture, recreation, or highways, throw programs out of line, usually involve serious omissions, warp current determinations, and mislead both officials and the general public as to the true function and values of state planning. It is inevitable that some studies be more advanced than others at any given time, but checks and balances should be in constant play to bring all of them out on the same or comparable plane at the conclusion of the preliminary program.

I do not mean to imply that there can be or should be a standard state planning program for uniform application in all States. Basic problems, working tools, and political expediencies differ widely and these are the chief determinants of the nature and the timing of state planning activities in the individual States. I do urge that the time has come or must be near at hand when we should break out of the experimental stage of state planning into better balanced programs and into more direct action. Not much longer can we take shelter under the alibi that no one really knows what state planning should be and do, that there are no blazed trails, and no controlling criteria. Three years is a long enough time for determining at least what we should be doing.

To the last, I maintain my resolution to venture no opinion as to whether or not state planning in general shows evidence of placing too much stress upon social and economic considerations. Neither am I inclined to predict future direction of this process. State planning is still something of a sitting toad of whom no one can say by looking at it how far and in what direction it will jump. Or, better perhaps, state planning is still in pre-adolescence with its potentialities for wisdom and foolishness still undisclosed.

HAS PHYSICAL PLANNING BEEN OVER-EMPHASIZED?*

WARREN JAY VINTON, Chief of Research, Division of Suburban Resettlement,
Resettlement Administration

THERE is no planner whom I hold in greater esteem than Russell Black. I first met Mr. Black nearly two years ago when seeking a site for Suburban Resettlement in New Jersey, and at once discovered in him a keen appreciation of economic and social values, an appreciation not always found in planners nurtured in the school of landscape design. My esteem for Mr. Black was naturally heightened when we found ourselves in complete agreement as to the site we finally recommended for Resettlement's ill-fated Bound Brook Project.

My esteem for him was further enhanced last night when I had the opportunity of reading the paper which he has just delivered to this Conference. I find myself in substantial agreement with almost all that Mr. Black has said.

I agree with the distinction which he has drawn between social and economic validity in physical planning, and social and economic planning itself. I also agree that social and economic planning is primarily a national matter, though Mr. Black writes a pretty big order for the Federal Government when he sets down as its first planning objective the stabilization, not only of the national economy, but also of the world economy. And he shows a more touching faith in Washington than I have acquired when he expects it to undertake, almost single-handed, the "improvement of the processes of government, and the raising of the cultural and spiritual level of the people."

I further agree with what Mr. Black has just said about the advisability of assigning economic and social planning, if any, to bodies distinct from these concerned with physical planning.

Now I had anticipated this agreement with Mr. Black, and foresaw the need of some other catalyst to precipitate my random thoughts on physical *versus* social and economic planning. So before leaving Washington I looked through my file of pronouncements on planning and I found exactly what I needed—a document covered from beginning to end with red pencil underlinings and notes—the paper which Mr. Charles Eliot 2nd delivered before last year's Conference at Richmond. In taking as my text some passages from Mr. Eliot's address on "The Growing Scope of Planning" I do not intend to imply that I hold him in any less esteem than Mr. Black, but merely that I found this particular speech of his especially provocative—indeed, in spots, provoking.

This paper of Mr. Eliot's well repays study, not only for what it says, but even more for its implications and for what it leaves unsaid. As the jumping-off place for a discussion of physical *versus* social and economic planning, it has the great merit of having been prepared by a man with

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

very large experience in the practical administration of planning, a man who has developed a pretty shrewd sense of just how much we can get the Nation to take in the matter of planning and of how far and in what fields we can make planning function.

When I say fields in which "we can make planning function," I do not mean "We, the National Resources Committee," nor "We, the Planners," but "We, the People"; for I, with Mr. Eliot, believe in the Democratic Process, and am convinced that planning is an essential part and function of that process. And I second the enthusiastic belief which Mr. Eliot expressed yesterday in the ability of a democracy to utilize intelligence in planning.

One advantage of considering planning as a function of "We, the People," is that when so considered it becomes a large, unified, and understandable whole. A planned activity really embraces five steps:

- (1) The study and understanding of a problem—commonly called research.
- (2) The creative conception of alternative solutions—a function unnamed, I presume, because it is so rare.
- (3) The choosing between alternatives—among these, of course, being the frequent choice of doing nothing. This function of choosing is generally known as policy-making.
- (4) Planning the detailed execution of the chosen alternative—known in physical planning as layout or design.
- (5) The execution and carrying out in practice of the chosen solution.

When we consider the agencies available for carrying out planned activities we find that these five steps are so different in character that it is generally impossible to entrust them all to the same body. Planning boards such as the National Resources Committee and State Planning Boards should, in Mr. Eliot's conception, generally limit themselves to the first two steps. The third step of policy-making may, in specific and limited fields, such as the choice of park sites or the location of roads, be delegated to planning boards, though most often policy-making is reserved to the elected representatives of the people or to the executive. Lay-out and design may be entrusted either to planning bodies, or more generally to agencies concerned with the specific activity in question, such as park commissions, road boards, or housing authorities. Execution is almost always entrusted to agencies other than planning boards, but even this should be watched and guided by planning agencies.

When we realize that it is appropriate to parcel out these various functions to different agencies we can better understand Mr. Eliot's statement last year to the effect that "personally, I think it is due to constant talk about execution of plans and controls that we have now to face the bugaboo of 'economic planning' and 'regimentation.'" When these words fell from Mr. Eliot's lips at Richmond I feared that he was attempting to put a taboo on *all* efforts to carry the planning

process to its final state of execution; that he was advocating planning for its own sweet sake, a sort of art for art's sake. But I now see that he was referring only to the activities of certain of the agencies which take part in planned activities; and that for the National Resources Committee in particular he was suggesting a limitation of function very suitable and sensible for any agency operating in the presence of a jealous Congress and a zealous Cabinet Officer. I am convinced that Mr. Eliot was not advocating "planning in a vacuum"—which he, I, and Nature all properly abhor.

Let us now move on to a consideration of the various fields in which planning is proposed, as distinct from the agencies concerned in the process. Let us see to what stages we can carry planned activities in these various areas.

Mr. Eliot admits that we cannot go as far in some directions as in others. In his Richmond speech he alluded to the different fields in which planning is proposed. As to physical planning he seconded the President's belief "that through the physical approach where people can see and feel the results from well considered planning policies, we are most likely to gain public support and understanding for future planning in government." In other words, Mr. Eliot contemplated that physical planning would be carried through to the fifth and final stage of results.

When he came to economic planning, however, Mr. Eliot limited himself to suggesting that "it is reasonable for us to ask intelligent questions as to what it is all about and as to how these things fit together." Here he was advocating the first step of research, combined with a tentative advance towards the second step of formulating alternative solutions.

But when he came to industry, the field in which capitalism most typically exercises its control of our economic life, Mr. Eliot was still more cautious. He did not suggest even the asking of questions, but merely suggested that "perhaps through the development of new techniques for measuring those capacities of production, distribution, and consumption, we will find new tools for other kinds of planning work."

In passing from physical planning to economic planning and finally to industrial planning, Mr. Eliot moved ever more cautiously. Why do we all tacitly agree with Mr. Eliot that in physical planning we can go forward to the fifth stage of tangible results, while at the same time doubting the advisability of any aggressive attempts at positive planning in economic and social fields?

When we look over the sum total of activities which make up our modern economy we find that some of them, in which the social interest is uppermost, are carried on by governments and their agencies. The great majority of our activities, however, are still entrusted to private initiative, with only that minimum of governmental control which is

necessary to prevent gross abuses. Between these two areas lies an intermediate zone where private initiative still operates (though somewhat imperfectly), but where the interests of society are so dominant that there is a large measure of public regulation and restriction.

The wide field of operation reserved to private initiative, the business world of today, is run and regulated by price. Price, moving up and down, regulates the quantity of goods and services which we may buy and consume. Price, moving differentially, regulates our choice between alternative commodities and services. These changing demands, motivated by changes in price, directly govern what is produced and how much is produced. And the varying prices paid for labor govern, in the long run, the choice of our occupations, and plan the economic lives of those of us who work for a living.

Theoretically, the price system even plans land use. The best use for any parcel of land is supposedly that use which yields the best return, and is, therefore, its most profitable use. And since economic man continually searches for profit, every land-owner will devote his land to the best use; or if he is dull and thriftless, some other man seeing the most advantageous use will buy the land and turn it to that use. Thus, presumably, every piece of land will eventually be put to its best use, and ideal and perfect cities should automatically result—only, of course, they don't.

The price system, in the fields where it works, governs supply and demand—dictating production, rationing consumption, directing the flow of labor, and regulating the use of land. This automatic control in a price economy is aptly described in the classic formula, *Laissez faire et laissez aller, le monde va de lui-meme* (Let things be, the world goes of itself). In other words, the price system, where it is in full-fledged operation, automatically does our planning for us, and no professional planners are needed.

Economists would have us believe that in some past golden age the world did run smoothly on, its affairs happily responsive to *laissez faire*, and its economic life automatically planned and regulated by the price system. Private enterprise in earlier epochs did carry on most of the activities now socialized under government operation. But as civilization has advanced, one activity after another has been removed from the field of private initiative. As life becomes more complex, a greater integration of activities is found necessary, and social control tends to supplant price control.

The sphere of public initiative where social control is predominant is the only field in which planned activities can go forward to their fifth stage of tangible results. This is a continually expanding area. Roads, bridges, harbors, parks, sewers, and water systems are publicly operated. National defense has been socialized for some centuries and education for a century, while government has more recently moved into the fields of public health and social insurance. All these functions have been

abstracted from the price system of private initiative because their provision by the community as a whole is more efficient and better meets our social needs.

Other activities now within the sphere of public initiative have been relinquished by private initiative because their operation no longer yields a profit. It is surprising to note how quickly unprofitable enterprises are discovered to be an appropriate field for government ownership. When canals ceased to be profitable a few generations ago they were speedily transferred to government control; more recently the trolley systems of our great cities have been passing into public ownership. The vast areas of land which have been despoiled by reckless exploitation—the cut-over ranges, eroded bad-lands, dust-bowl farms, and abandoned mining areas—have been found during the depression to be very proper objects for government acquisition.

Still more recently it has been discovered that housing for the lower income groups is an appropriate field for public initiative. Private enterprise has finally admitted that no profit can be made in the housing of slum dwellers and other low-income groups—if they are decently housed. It is due to this belated recognition that public housing is now an issue of the day, and that the Wagner-Steagall Housing Bill is likely of passage at this session of the Congress.

All these areas of operation—roads, harbors, parks, utilities, urban transportation, problem lands, and finally public housing—are no longer subject to the price system of private enterprise. And since they are not controlled and planned automatically by price they are appropriate and suitable fields for planning in the community interest.

It is exactly in these fields that our present-day planning has its stronghold. In them we can do positive planning, planning that goes on to its completion in execution. These are the fields in which “We, the People” are content that “We, the People” should plan, own, and administer our own resources. This sphere of positive planning is also, for reasons presently to be examined, the principal field of physical planning.

Between this sphere and that of untrammelled private initiative where the price system reigns supreme, there lies an intermediate zone. In this intermediate zone operation is still entrusted to private initiative, but the public interest is so dominant that large measures of social control are admitted. In this intermediate sphere the price system is disintegrating, and no longer functions with its pristine, untrammelled license. Operation is increasingly subject to governmental regulation and restriction, and public ownership tends to increase.

Our railroads fall in this intermediate zone; and the fiction of private ownership is preserved to our merchant marine only by a complicated and extensive system of government loans and subsidies. Our privately owned public utilities—electricity, gas, telephones, telegraphs, and radio—are subject to futile but ever more necessary regulation and restriction.

The evil plight of our cities is forcing us to more stringent controls of urban lands and structures through the negative planning measures of zoning and building restriction. Even agriculture shows some signs of moving into this intermediate zone. The Agricultural Adjustment Act, the Soil Conservation and Domestic Allotment Act, the Ever-normal Granary, and the Farm Tenancy Act are scarcely devices of classic *laissez faire*.

In this intermediate sphere where the price system still has a foothold, we cannot look for positive planning carried through to the fifth stage of execution and results. We must content ourselves with negative planning and exercise all possible controls such as price regulation, zoning, and building restriction. Mr. Eliot in his Richmond paper cried out that "emphasis on controls is negative when what we want and need are positive actions." But he should have remembered that we cannot have positive action in fields where we have private ownership, and that in these fields we must be content for the time being to make social control as effective as possible.

When we come to the sphere reserved to private initiative, the great business world of today, we come to an area where we can do little or no effective planning. *Laissez faire* and the price system are still in effective control of commerce, industry, finance and credit. Here capitalism has its stronghold, and here it exercises its real control of our modern economy. Here Big Ownership brooks no effective interference.

Mr. Eliot realizes this, for he displayed an excessive caution when he approached the subjects of economic and industrial planning. The Wall Street Journal realizes this, for in commending the National Resources Committee for minding its own business, it also warned against any encroachment on the preserves of capitalism: "Economic Planning has become a catch phrase signifying an effort to *control* production, prices, wages, credit, and a host of other things in accordance with the dictates of Federal Bureaucrats.—The type of planning advocated by the National Resources Committee in its latest report is of an entirely different nature." In other spheres planners may function, but not in the fields preëmpted by Big Ownership. Here economic planning is estopped by economic privilege, social planning by social prejudice.

All that Government can do in this sphere is to set the rules of the game and legislate against grave abuses. The laws which govern incorporation, erect tariffs, and set up banking systems, though economic in nature, only set rules under which capitalism operates with a free hand. And governmental regulation is, in this sphere, strictly limited to legislation such as the Securities Exchange Act, the National Labor Relations Act, and minimum wage and hour acts to prevent the gross abuse of power.

We have seen that in the field of public initiative we can do effective positive planning; that in the intermediate zone we are limited to negative planning; while in the sphere of private initiative we cannot effec-

tively plan at all. In the first sphere, where we can effectively plan, our planning is primarily physical; in the second sphere planning has both physical and economic elements; while in the third sphere, if we could plan, our planning would be primarily economic and social.

This is no coincidence. For the land, with which physical planning primarily deals, is no longer the instrument through which capitalism controls our economic life. Its control is exercised through the intangible ownership of stocks and bonds, and especially through the control of finance and credit. Big fortunes are no longer based on the ownership of land. The control of our economy lies elsewhere, and the planning of our physical resources no longer constitutes a vital threat to Big Ownership. It is, therefore, with physical planning that planners are presently forced to content themselves.

And so, at length, we come to the subject of this paper: "Has Physical Planning Been Over-emphasized?" Certainly not. Physical planning is the tool appropriate to the sphere of public initiative, the only sphere where we can do positive planning and carry out our plans to fruition. We need more and better physical planning, and wiser and more effective execution of our plans. But this physical planning must have, as Mr. Black has pointed out, economic and social validity. Physical planners must have associates trained in political economy and sociology, or themselves have an equivalent background.

In the spheres that are primarily social and economic any attempts at positive planning under present conditions are little better than "planning in a vacuum," for we lack the power and sanctions necessary for the execution of our plans. But even here we can usefully carry out research and offer advice. We should try to see that the economic policies of government (which, of course, are not positive planning) are well advised and consistent.

I can imagine nothing more useful to the nation than an economic general staff, a group of trained thinkers and critics competent to give economic and social advice to the Administration. Much of the legislation of the past five years has been inconsistent and has run at cross purposes. Competent advice could have been helpful in avoiding these inconsistencies. Such an economic general staff, however, should never attempt the making of positive plans, nor delude itself with the hope that economic planning can be carried to any such positive results as are possible to physical planners. For this reason such a group should never embark on administration, but sedulously keep behind the scenes, content to advise and counsel with a pure "passion for anonymity."

And so I end with a plea for more physical planning imbued with social and economic validity; and with a warning that economic and social planning must content itself with seeing that our legislative rules of the game make economic sense.

STATE PARKS

Citizen Support

THE NATIONAL CONFERENCE ON STATE PARKS*

RICHARD LIEBER, President, Indianapolis, Ind.

EVER since our meeting at Pineville, Kentucky, three years ago we have viewed with great expectation the spread of state-park development all over the country until by this time some 600,000 acres constituting eighty per cent of the original state-park holdings, but not counting the Catskill or Adirondack areas, have been added. We also observed the readiness of almost all States to take on any amount of acreage and let the Federal Government work out plans for development, or have them actually develop part of the new possessions. As the years went on we voiced first our apprehension lest some of the States would bite off more than they could chew and after that, were compelled to hold up a warning hand against such economically unsound practice.

The Director of the CCC, Honorable Robert Fechner, pointed out two years ago and again at our last meeting in Hartford, Conn., that state action must first correlate and then supersede Federal help. It is, of course, impossible to list mere increased acreage as a gain if there exist no guarantees that the same will be properly developed and maintained by the respective States.

We have, therefore, noted with a great deal of satisfaction the earnest letter which in February the President sent to the Governors of our States. In this letter speaking of CCC, the President said:

When I sent a special message to Congress in March of 1933 proposing the creation of this new organization there were very few who visualized just what the new organization was intended to accomplish. Few States were prepared to accept their proper part of responsibility in the tasks that the new organization was intended to accomplish. In this emergency we did not hesitate to authorize the use of Federal funds to assist the States in receiving their proper share in this work. Letters, however, were sent to all state governors in May of 1933 and again in 1934 and in 1935, calling attention to this situation and urging that States which had not properly provided for their part in this work should immediately do so by enacting legislation where necessary and in appropriating necessary funds.

In the first place it is vitally important that each State should make adequate arrangement to maintain the physical improvements that have been accomplished by Civilian Conservation Corps camps on state property. This is with especial reference to state parks and state forests.

He concludes as follows:

It seems to me that the time has come for each State to make proper provision for taking over this part of the work. In preparation for the probable

*Introduction to the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

establishment of the Civilian Conservation Corps as a permanent Federal agency, consideration is now being given to what has been accomplished. Many camps are completing their approved work projects and it will be necessary in the coming months to find new work projects to which companies can be assigned. It will naturally follow that those States which show a proper concern for their part in this coöperative work with the Federal Government will be entitled to receive first consideration.

This last sentence, that those States which show proper concern in the coöperative work would be entitled to receive first consideration, will have a direct bearing upon the manner in which the state-park survey which is being made at this time will be applied.

In a letter to Mr. Conrad L. Wirth, Assistant Director, National Park Service, of November 11, 1936, I pointed out that in order to make headway we should begin by separating the goats from the sheep. In that I meant that we should begin with those States which have lived up to their promises made during the last three years and who have actually assumed responsibility of management. This would be the first group—one pitifully small. The second group—somewhat larger—would consist of those States which during the past legislative sessions have passed legislation plus adequate appropriation to assume responsibility. The third group will number those States which are always willing to receive, but either are unwilling or incapable to carry on. It should be perfectly clear to us that unless we succeed in getting the States to take over a responsibility which is theirs, Federal assistance automatically becomes inoperative.

Our own organization, owing to lack of funds, has so far been unable to bring Mrs. Wilbur Nelson's book on state parks up to date. This is very unfortunate because we are thereby lacking the yardstick by which to measure success or failure of state-park authorities. The aforementioned survey, when completed, will have to be digested and edited. How that is going to be done, I do not know. For while we are lacking the funds to do the work we hope that the National Park Service will be able to find qualified experts to judge the comparative merits or demerits. While we are thus waiting for the outcome we would like to suggest to the National Park Service to put one of their capable field men to work on the necessary task of producing an up-to-date history of the state-park movement, its policies, and manner of administration, as well as their plans for future development.

In this proposed book a chapter should be devoted to the immediate relation which state parks have to the larger concept of conservation of natural resources. Polluted water courses, lake levels reduced by ill-advised drainage, burned or wasted forests are items which if suffered long enough will ultimately render futile state-park maintenance. Another chapter should deal with private resort development of outstanding quality. Both private and public properties for financial as well as recreational success are dependent upon the preservation of our land-

scape. Another chapter I would consider of the greatest importance. It should be devoted to an exhaustive treatment of the park concessionaire and his work. Entirely too little attention has been paid to this all-important functionary. The best-laid plans of park authorities and enthusiasts "gang aft agley" for lack of a capable concessionaire. It is he who has the double function before he can consider even his own pecuniary interest, to represent the park authorities as well as the touring citizen. If he does not have this complete understanding of what the State can give and what the visitor is entitled to receive, he will have no further opportunity to consider his own material interests, for there won't be any left. But in the measure in which he is capable of acting as the state's representative, playing the part of mine host, he will find a rich reward and certainly all kinds of opportunities to profit in a material way as he should. Watching our own parks in Indiana and hundreds of others throughout the Nation, I feel that we have only scratched the surface in making a success in this interesting and fruitful field of endeavor.

State parks are now pretty well scattered all over the landscape. Visitors stream into them because they feel that they are safe and well taken care of, yet traveling from one park to the other or from one State to another, one real problem continues to confront the wayfarer and that is where to find a good clean bed and well-cooked meals. Just as much as the AAA has covered the entire country by searching out hotels that they may recommend, and continuously checking on them for sustained quality of service, so it might be well if our state-park authorities would list tourist homes, camp sites, roadway restaurants, et cetera, grading them according to quality. It would be a distinct service to the state-park visitor and he would be given the feeling that the State is also interested in his welfare when traveling between parks. No listing, however, should be done in towns over 1,000 inhabitants, good accommodations in larger places being listed anyway by the AAA hotel guide. The contemplated list, of course, should include all private resorts worthy of mention in as much as it is to the interest of the State that private capital should find encouragement in extending recreational service.

Outdoor recreation in our country has just begun to assert itself. From now on you will see a great deal more traveling and visiting than ever before.

Popular appreciation of American scenery and history is of but recent origin. Development of proper facilities to bring scenery and history within reach of the folks—as we say in Indiana—the country over is hardly keeping up with demand. Again, we have barely scratched the surface.

Europe long ago has taught us that the tourist business can be made a profitable industry. It will succeed, privately or publicly, if placed on a sound economic basis. The enterprise will fail if we depend exclusively upon appropriations, gifts or public charity so far as state-park properties

are concerned and we will hasten the inevitable debacle of the whole business by a refusal to have management keep step with time. The \$8.00 to \$24.00 per day American plan is not of our kingdom. We are and must be concerned with the folks of moderate means and we must serve them well. Nor is there any reason why we could not. Our aim must be to keep down travel cost, raising at the same time quality of service. Or put it another way: "Give more service for less money." I assure you it can be done; and when it is done the income to State, concessionaire and also to private resort managers, notwithstanding the reduced cost to the tourist, will be as great as it is now or even greater through the vast increase of volume. When the increase arrives—for it is on the way now—wouldn't you wish that your State had betimes put on a dime gate charge?

It is my earnest hope that the National Park Service will see fit to carry out the spirit of my recommendations and that the state park authorities in turn will follow suit.

Making the nation-wide survey is but the collection of related parts. Next comes their careful assembly into a workable whole and lastly, its proof of useful application.

The National Conference on State Parks will be ready to assist whenever called upon and in the interest of greater effectiveness prefers to act in a nation-wide setup instead of attempting solution case by case

To that end we have in the Branch of Planning and State Coöperation of the National Park Service a common center as well as a source for information and direction.

Our own organization representing as it does the people at large, their interest and concern in parks and recreation, fulfilling their wishes and hopes for a more beautiful and certainly a more orderly appearing country, will continue to urge upon our governments, local, county, state and national, the acquisition of additional land and water areas suitable for recreation, for the study of natural history, for the preservation of wild-life, and for historical monuments leading to the better understanding and appreciation of the history and development of our Nation and its several States, until there shall be public parks, forests, and preserves within easy access of all the citizens of every State and territory in the United States; and to encourage private citizens and groups to acquire, maintain, and dedicate for public uses similar areas.

THE PENNSYLVANIA PARKS ASSOCIATION*

ELLWOOD B. CHAPMAN, President, Philadelphia, Pa.

THE Pennsylvania Parks Association was organized in October, 1930, and is therefore almost seven years old. For many years a number of our members were identified with the Pennsylvania Forestry Association, which latter is now slightly over fifty years old. Whereas they were primarily interested in the protection of existing forested areas and in the reforestation of the denuded hills and mountains of the State, with which objects we are in full accord, the Pennsylvania Parks Association is mainly concerned with the acquisition and development of large recreational areas, each perhaps containing several thousands of acres on which it may be possible for our citizens to camp, hike, fish, swim, canoe, sail, ride horseback, enjoy forests, streams, waterfalls and lakes, and almost every phase of outdoor activity.

We have the feeling that as the number and size of our great parks increase, misdemeanors and crime will decrease and the health of the young and middle aged improve to such an extent that nervous disorders will largely disappear.

Whereas, in the earlier days of our existence, our members were largely centered in and around Philadelphia and Pittsburgh, we now have members in practically all parts of the Commonwealth. However, we need a great many more members and trust that those of you who are Pennsylvanians will do your utmost to get those who are sympathetic with our aims and purposes to join our group at this time.

From the outset we have aimed to develop public opinion concerning the general idea of Parks, and that our efforts have attained some degree of success is evident from the fact that from various parts of the State we are continually receiving Park News items. Probably the greatest accomplishments other than Federal have been in Allegheny and Cambria counties in the West, Delaware, Montgomery and Berks in the East. Not only are we learning of the formation of County Park Boards, but as recently as last week we learned of the appointment of a near-by Borough Board to coöperate with the Delaware County Park Board. The Delaware County Federation of Women's Clubs has just passed a resolution urging the appropriation by the Delaware County Commissioners of funds for the enlargement of the park areas of the County and for the employment of trained executives to develop them.

Last February the Berks County Court granted a Charter to the Blue Mountain Wilderness Park Association, a most active organization which has as its object the protection of the forest and wildlife and Appalachian Trail developments, on the Blue Mountain between Lehigh Gap and the Susquehanna River, a distance of about 108 miles.

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

Another large project, that of the Buck Tail State Park, which has been in process of development for a number of years, is being sponsored by the Buck Tail Trail Association. This area is a 75-mile stretch of wild and rugged mountain scenery along the West branch of the Susquehanna and the Sinnamahoning.

Our meetings have been held in the various parts of the State, so that our citizenry through the publicity we get may, as a whole, become thoroughly familiar with our objectives. Largely because of the pioneer work of our first vice-president, Philip M. Sharples, the Federal Government was able to start the French Creek project much more promptly than it was able to begin operations in other sections of the State.

Fortunate as we have been by reason of the Federal acquisition and development of big recreational areas, there remains a tremendous amount of similar work to be done by the citizens of our own State. Personally, I feel that practically all of the Federal areas are too far removed from the big centers of population to be easily accessible to the millions making up the under-privileged group, and I for one would like to see thousands of state acres in close proximity to each of our large cities acquired for the enjoyment and use of those who do not possess means of transportation, but who through some help from the State or cities may be able to come in contact with the great out-of-doors.

Whereas it is highly desirable to acquire the more scenic areas which measure up to state park standards, we have right at our doors possibilities of no mean value which we should grasp while land values are comparatively low, areas which can, with moderate expense, be converted into the most wonderful of outdoor playgrounds.

There are many people who have in their possession large acreages which could very easily be made to meet the needs to which I have referred. Cannot some of them be induced to donate these to the State preferably, but otherwise to the County in which they are located if perchance the State feels that the acreage offered does not quite measure up to the requirements for a State Park?

Unquestionably there are many much larger areas which are better adapted to outdoor pleasures, and if there were only some agency which would undertake to locate, secure and develop these, it should be possible within a very short time to serve a considerable percentage of our juvenile population hungry for the open spaces and to so educate them that when they become the citizens of the future they will carry on our work. The question is—who has the land and where can we find the leaders for such development work?

We also need the help of many individuals who will contact our legislators and get them so enthused over the whole park movement that when our legislature meets again it will appropriate the funds for acquisition and development of many large park grounds, which between

now and then the Department of Forests and Waters may locate and pass upon as worthy of favorable consideration.

We also need many members who will address the various civic organizations regarding the park problem with which we are confronted. Were we able to contact the newspaper editors, various women's organizations, Chambers of Commerce, Boards of Trade, Parent-Teacher Associations, County Superintendents and school teachers, and the school children themselves, we would have public opinion so solidly behind us that funds would soon be forthcoming.

Do we not also need individuals who will contact people of wealth, many of whom would be glad to contribute to the purchase and development of recreational lands?

What finer monument could there be to a man or a woman than an everlasting playground?

Through the generosity of a friend who recently presented us with \$600 we are hoping, with the aid of our regular subscriptions, to be able to issue monthly our *Park News*, and we trust that we may have many more friends who will also contribute financially to our cause and others who will contribute articles for publication.

In closing it seems fitting in these beautiful surroundings that I should quote the words of C. Edwin Smith, a citizen of this County of Chester who for many, many years lived in close contact with nature and who recently passed to his reward. These words were read at his funeral on November 27, 1936.

CONTENTED

I am content—my soul no longer pines
 For help divine, enthroned in *distant* shrines;
 Each blade of grass, each flower and leafy tree
 Proclaims the *presence* of the Deity.
 The air I breathe—the sun, the rain, the dew,
 But touch our Mother Earth—she blooms anew,
 Each plant or blossom on its fertile stem
 But plays their parts for me, and I for them;
 All revel in their Spirit Sons of bliss,
 No worry from another world, or this.
 Each living thing is born of one Great Cause
 And each and all obey eternal laws,
 The end we may not see or understand
 But know it rests in one Almighty Hand.
 All live and thrive with universal trust
 In That which made them from the sacred dust;
 When I, with them, return unto the sod
 I will be home again with Nature's God.

C. EDWIN SMITH

Relation of the Federal Government to State Parks

STATE-PARK DEVELOPMENT UNDER THE CIVILIAN CONSERVATION CORPS PROGRAM

ROBERT FECHNER, Director, Civilian Conservation Corps, Washington, D. C.

SINCE its inception in 1933, the Civilian Conservation Corps has left the impression of its efforts upon many phases of our national life. At this stage, with more than four years of work behind us, we are able to look to the future of our program from a vantage point which enables us to see in both directions, charting our course with the benefit of past experience combined with the new and fresh ideas which are such a vital part of a living, growing movement.

One of the greatest achievements of the CCC, I think, is its contribution to the park and recreation movement in America, for which I see a splendid future with the continued operation of CCC projects in our national, state, county and metropolitan parks and recreation areas. Our boys have been at work in such areas since the beginning of the CCC program in 1933, carrying on numerous operations for the protection, conservation, and development of these non-federal parks under the planning and supervision of the National Park Service in coöperation with state and local authorities. There is still much for them to do in this joint field of conservation and recreation, and the months and years to come will witness steady progress with the job of giving proper treatment to these natural resources in order that they may be fully and completely dedicated to the use of the people.

Of greatest significance in this whole park and recreation movement, in my opinion, is the emphasis which is now being placed upon the importance of a well-ordered national plan for the planning and development of state and local parks and recreation areas. The advantages of such a procedure are obvious when we consider the circumstances under which the park and recreation movement is developing today.

Prior to the establishment of the Civilian Conservation Corps and the launching of the CCC program, the various state and local units of government operating parks were acting upon their individual initiative and with their individual resources in the planning, acquisition, and development of park areas. Under the CCC program—in which 47 of the 48 States are coöperating—a great store of Federal aid has been made available in the form of ECW funds, CCC manpower, and the planning and technical supervising facilities of the National Park Service. Naturally, a program in which the Federal Government was a participant to such great degree had to have nation-wide coördination in order to be carried out effectively and economically.



A flood-control project executed by the CCC in the state parks
Photograph courtesy *American Forests*



Wilderness beauty in the state parks made accessible by trails and roads
constructed by the CCC
Photograph courtesy *American Forests*



CCC enrollees gathering duck food seed for planting on Bear River
Wildlife Refuge in Utah

Photograph courtesy *American Forests*



Developing wildlife refuge projects has been an important work of the CCC

Photograph courtesy *American Forests*

This manner of operation proved so successful that Congress authorized, in 1936, a permanent system of coöperation between the Federal Government and the States in the planning of parks and recreation areas. This Act, which was approved by the President on June 23, 1936, says:

For the purpose of developing coördinated and adequate public park, parkway, and recreational-area facilities for the people of the United States, the Secretary (of the Interior) is authorized to aid the several States and political subdivisions thereof in planning such areas therein, and in coöperating with one another to accomplish these ends. Such aid shall be made available through the National Park Service acting in coöperation with such State agencies or agencies of political subdivisions of States as the Secretary deems best.

The consent of Congress is hereby given to any two or more States to negotiate and enter into compacts or agreements with one another with reference to planning, establishing, developing, improving, and maintaining any park, parkway, or recreational area. No such compact or agreement shall be effective until approved by the legislatures of the several States which are parties thereto and by the Congress of the United States.

This future coöperation between the Federal Government and the States and their civil divisions will be carried out on the basis of a nationwide park, parkway, and recreational-area study, also authorized in the above-mentioned act, which has already been placed under way by the National Park Service. So you see, the planning and development of park areas on a national scale, started under the Civilian Conservation Corps program, can continue in line with a definitely conceived national plan for conservation and recreation.

It is gratifying to me to know that such a fine program for the future is being planned upon the foundation of the work which has been done by the Civilian Conservation Corps. From the standpoint of long-term planning it is impossible, of course, to forecast how long the CCC will be a part of this program. So long as the Corps shall be in it, however, we shall continue to do our share and make a worthwhile contribution to the movement as a whole.

A great deal has been said and written from time to time about the work of the CCC in state parks. I think, however, that the contribution of these boys to the park and recreation movement cannot be emphasized too much. It is true that the essence of a good park system is in the planning of the various areas and their relation to each other, but we should not overlook the importance of the work program without which such planning would remain simply a record on paper. The CCC has made possible the turning of such plans into actual rest and play areas for the benefit of the people. Our boys have given protection to the forest stand on these areas, have halted erosion of land and stream banks, have built trails and bridges to make the parks accessible to their users, and have built such structures and facilities necessary to the full enjoyment of the people. This has been our contribution, and it is a contribution of which we are justly proud.

The best way, of course, to find out what the CCC has done for state parks is to visit the parks. But the limited range of an individual can never give him a true picture of the magnitude of the whole job that the CCC has done in state parks. For that we must turn to the record of actual work accomplishment which shows, for instance, that between April, 1933, and January 31, 1937, the CCC carried out under the heading of structural improvements the construction of 2,689 bridges of the foot, horse, and vehicular types; 560 overnight cabins, 450 shelters, 8,842 buildings of miscellaneous character, 353,889 rods of fences, and 94,008 rods of guard rails.

Cribbing called for on various jobs totaled 23,462 cubic yards. There were 969 impounding and large diversion dams constructed, and in this operation many fine swimming and bathing places have been provided in the parks. Such work involved the pouring of 44,202 cubic yards of concrete, the placing of 1,165,527 cubic yards of earth fill and 25,717 cubic yards of rock fill. There were 527,359 cubic yards of earth excavated and 80,820 cubic yards of rock removed. Masonry work amounted to 22,264 cubic yards, and riprap work totaled 92,522 square yards. Some 1,445,214 pounds of steel went into these structures. Levees, dykes, and jetties involved 112,379 cubic yards of construction. In the building of sewage and waste-disposal systems the CCC built 109,384 square yards of disposal beds, 341 disposal tanks and cesspools, 124 incinerators and 499,755 lineal feet of sewer lines.

For the protection of parks, and for more efficient administration of them, the CCC installed 1,106 miles of telephone lines. Park visitors are receiving the benefit and enjoyment of 364 drinking fountains installed in parks by the CCC. The boys further improved water systems by digging 42,428 lineal feet of open ditches and laying 1,958,704 lineal feet of pipe or tile lines. There were 122 public campground water systems installed and 262 springs, water holes, and small reservoirs provided. Water-storage facilities with capacity of 24,982,000 gallons were built, as well as 754 wells, including pumps and pump houses.

Other structural additions included 5,149 camp stoves and fireplaces, 113 portals, 2,542 seats, 8,705 signs, markers, and monuments, 7,463 rods of stone walls, and 9,897 table and bench combinations for picnic areas.

Truck trails for the protection of forest areas against fire and disease were built to the extent of 2,109 miles, and some 444 miles of minor trails were laid out. Park visitors are hiking over 2,650 miles of CCC-built foot trails and riding over 1,208 miles of horse trails.

Erosion control is a very important part of the work program in any area where such conditions are met. The CCC accomplished 3,200,459 square yards of stream and bank protection. In the treatment of gullies the boys worked over areas totaling 53,675 acres, carrying out 922,197 square yards of bank sloping, constructing 9,005 permanent and 4,901 temporary check dams, seeding and sodding 2,518,415 square yards of

land, and planting 437,805 square yards with trees. Some 61,734 lineal feet of diversion ditches were dug.

For flood control the CCC cleared and cleaned 19,344,001 square yards of channels and 2,915 acres of reservoirs. Concrete lining of waterways totaled 2,398,363 square yards. The work also involved 71,633 cubic yards of earth excavation for channels and 288,422 square yards of riprap.

In forest culture there were 346,696 acres of field planting or seeding for trees, 56,946 acres of forest-stand improvement, and 116,158 man-days were spent on nurseries. The boys spent 284,785 man-days fighting forest fires. Other forest-protection measures included the building of 2,971 miles of fire breaks. Fire-hazard reduction involved 1,847 miles of roadside work, 1,977 miles of trailside work, and other operations over areas totaling 129,984 acres. For fire presuppression 58,461 man-days were spent, and for fire prevention, 4,947 man-days. Tree and plant disease control work was carried out over 135,301 acres, and tree insect-pest control work over 255,691 acres.

Landscape and recreation work included such operations as 1,015 acres of beach improvement, 9,355,560 square yards of fine grading and road sloping, 60,798 acres of general clean-up, 19,645 acres of lake or pond-site clearing, 28,082 acres of landscaping undifferentiated, moving and planting of 3,776,177 trees and shrubs, obliteration of 465 miles of undesirable roads, 71 miles of undesirable trails, and obliteration of borrow pits involving 190,054 man-days of labor. Work was done on 1,956,976 square yards of parking areas and parking overlooks, 10,172 acres of public campground development, and the provision of 10,665 other public campground facilities. Public picnic-ground development was carried out over 1,867 acres. Some 7,000 undesirable structures were razed in park areas. The CCC boys collected 17,838 pounds of flower, grass, and shrub seeds and worked on 3,242 acres for soil preparation such as topsoiling, fertilizing, and fitting. Vista or other selective cutting for effect was accomplished over 5,197 acres, while 120,099 lineal feet of walks were built.

For the protection and propagation of wildlife in the parks, the Corps provided 54 fish-rearing ponds, worked on 4,676 acres for food and cover planting and seeding, devoted 85,482 man-days to lake and pond development, and stocked 1,220,211 fish. Some 467 miles of stream development was finished.

These figures, I believe, should be interesting to people concerned with parks and recreation. They constitute an accounting of stewardship by those to whom you have entrusted your state parks temporarily for protection, conservation, and development. We think we have done a good job, and we hope that you think so. Most of all, we feel that we have provided a sound foundation, standardized throughout the country, for the building of a greater and increasingly useful state park system.

THE NEW CCC PROGRAM IN STATE PARKS*

CONRAD L. WIRTH, Assistant Director, National Park Service

BEFORE discussing the future state park program in connection with the CCC, there must be a clear understanding of the three fundamental points which are the bases on which all future relationships between the Federal and state park services must be founded. They are: (1) a basic understanding of objectives; (2) a realization that national parks and state parks are equally important in their own field of the recreational service; (3) a realization that while Federal and state park authorities are working in different fields, each group can learn much from the other. In other words, we must set a high standard for park and recreational development, both national and state.

In the last few years there has been a great deal of discussion on standards of coöperation. There has also been a real crystallization of opinion concerning the value of parks and recreation. I realize that a great many mistakes have been made, but I feel certain that we all have benefited from the activities of the last few years.

As you know, last June Congress authorized the Park Planning Act, known as Public 770 $\frac{1}{2}$, which is now being carried out. Certain parts of this survey, such as the legislative study, have already been completed. When the entire report has been completed, which will perhaps be in another 12 or 18 months, we hope to have a thorough analysis of the park and recreational facilities of the country, upon which we can base our future planning and relationship with the States. It is our intent at that time to submit all the material to the various state authorities and have a free and open discussion as to the best way in which the States and the Federal Government may join hands in providing an adequate park and recreational system, established on an economical and sound basis, for the health and welfare of the citizens of this country.

I should like to point out at this time, however, before any further discussion is had on the relationship of the States to the Federal Government, the hopes and desires of the National Park Service. There have been some rumors, or at least some people have suspected, that the National Park Service has the desire to assume control of state park work and administration. I should like to go back into the history of the National Park Service and point out that in 1921, Director Mather called together the state park authorities and, among them, they formed the National Conference on State Parks. The basic reason for Mr. Mather's interest in this was that a few years after the establishment of the National Park Service he fully realized that the park systems of the Federal Government and the States must be closely correlated for the protection of each other. True, the National Park Service had no specific authority,

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

at that time, to cooperate with the States nor had it any funds with which to aid the States. Mr. Mather was interested in this from his own personal standpoint. The Park Service has always aided, at least morally, the National Conference on State Parks because it felt that that organization was *the* true representative group of state park authorities.

In 1933, when the CCC was started, Mr. Horace Albright was Director of the National Park Service, and I can say very definitely that the only interest the National Park Service had at that time in supervising the CCC work on state, county and metropolitan parks, was to be of assistance to them and act as a clearing house so that they might obtain aid from the CCC in developing their park and recreational projects. At that time our position was that of assisting the States by making available to them such funds as the Federal Government might care to devote to the aid of the States in developing their park and recreational systems.

That same policy has been carried out under the present director, Arno B. Cammerer. The National Park Service never did, and I assure you does not now, have any desire or intention to be other than of assistance to the States and, above all, it does not care to take over any of the state park systems or dictate policies of administration.

However, we do feel that in the expenditure of Federal funds we are charged with quite definite responsibility to see that these funds are spent on developments needed for park and recreational purposes, that the developments are of a high standard, and that the funds are spent as economically as possible. This point is further emphasized by the fact that in our land-acquisition program, commonly known as the Recreational Demonstration Projects, we have not acquired any lands in the States for park and recreational purposes without the definite assurance from the States that these arrangements would fit into their park and recreational systems and that the lands would be acceptable to them. We are now initiating a program which will permit us to turn these lands over to the States as early as possible. We shall continue this policy in the future, as in the past, in so far as the States desire it.

You will note that in our park planning act, it is definitely stated that the Park Service will cooperate with the States only where the state authorities are desirous of our assistance. We have enjoyed immensely our relationship with the States in the last four years and feel confident that we have been of some assistance to them. We also feel that the experience we have gained in our cooperation with the States has been of tremendous benefit to us. Many of your problems, such as handling crowds, are more difficult than ours, although in many of our areas we can anticipate problems as difficult as yours.

I sincerely hope that in this short talk I have made myself clear regarding the attitude of the National Park Service and its relationship to the States.

THE PARK, PARKWAY, AND RECREATIONAL-AREA STUDY*

BEN H. THOMPSON, Assistant to the Director, National Park Service,
Washington, D. C.

THREE years ago, in 1934, when the National Park Service was asked by the National Resources Board to prepare a report upon the recreational use of land in the United States, it was evident, from our first considerations, that the requisite information was not available. The time allotted for the assignment was all too brief. Pushing all other duties aside, a number of us concentrated for several months on the collection and analysis of the data that could be obtained, from the results of specific studies, from thousands of questionnaires sent throughout the country, from the recommendations of numerous organizations, and from the first-hand knowledge of individuals who had specialized in park and recreational work. A specific example of the type of study conducted at that time was the recording, analysis, and classification of the known archeological sites, by a committee of competent archeologists, and the formulation of policies to govern the use of such sites until a more effective program for their protection and use may be devised. The archeological section, alone, of the report has been of constant value to us ever since, and the information gathered and the ideas formulated during the general study have been guiding factors in the extension of park, parkway, and recreational-area developments made possible by emergency funds. Nevertheless, the one subject on which the discussions of that committee kept revolving was the urgent need of an early and continuing study of the recreational requirements, programs and possibilities of the country as a whole. When we rendered our report to the National Resources Board in November, 1934, it was with the feeling that we had compiled 600 pages leading toward that which was not known. The real study was yet to be made.

Two years later, in 1936, the Congress passed the Park Planning Act, Public 770 $\frac{1}{2}$, which authorized the Secretary of the Interior, through the National Park Service, to cooperate with the States and with other Federal agencies in conducting a nation-wide study of public park, parkway, and recreational-area programs, and cooperatively to formulate plans for a national recreational policy.

It is possible that that Act is more significant than has been generally realized, that is, if all agencies that come within its purview will take advantage of it. It sets up for the first time a permanent and official clearing house for dealing with, what might be called, the local, state, and national species of recreational currency, which have developed independently and, heretofore, circulated in separate channels without regard for harmful duplication, needless divergence, or for the national welfare.

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

It provides a vehicle for molding and focusing public opinion on recreational problems and of coordinating the efforts of different agencies. It also provides a vehicle for defining local, state and Federal responsibilities in the national plan. But most important, perhaps, it provides direct channels for the conveyance of local requirements and recommendations to national agencies so that the national program, instead of being promulgated paternalistically, will itself be shaped by the information and the recommendations from the communities and States, which must themselves be the originators of national policies and of the nation-wide program. That type of organization is not inconsistent with the principles upon which our government is founded and I believe it is what is meant by the authorization in the bill to "coöperate and make agreements with and seek and accept the assistance . . . of States and political subdivisions thereof."

Let us understand the procedure of this study from the very beginning. The National Park Service is not sending its representative out into the field to study the recreational requirements and programs of the communities and States. Neither is it, under the guise of a study, undertaking to dictate to the States what they should do, or to duplicate the studies and functions of established state agencies. It would not have the funds and personnel to follow such a course even if it were desirable. If the authorized study is to have any success, its methods of procedure must be a complete reversal of that picture. The study must be undertaken by the States, with the coöperation and assistance of the Federal Government.

Such procedure will require the designation of a recreational study authority, which may be the state park authority, the state planning board, or some other state agency. If the state study authority is to operate effectively, it must have adequate personnel, funds, and facilities to carry out the study within the State and to secure the requisite information in all fields that, together, make up the composite picture of the state's recreational use of its resources; for recreational use of resources is not a single use, it is social use. Its proper planning, therefore, involves the study of natural resources, such as beaches, water, forests and wildlife; of scenic assets and liabilities; of the conservation of natural and human resources; of economic and social conditions and trends, and numerous other factors. An attempt has been made to provide for the logical breakdown of such subjects in the manual of procedure for the study so that the data may be recorded in usable form. In many instances the information is already available and only requires correlation with the results of other studies. In other instances, state or other agencies have related studies already under way. But in many cases, original field investigation, tabulation, and appraisal will be required. It is the state study authorities that must compile, record, and analyze such data and base their recommendations

upon them, if the study is to be of real value to the States and to the Nation.

Upon the basis of that information, compiled by the States and carrying their recommendations, the Federal Government and the States will be able, in accordance with the authorization of the Park Planning Act, to coöperate more effectively in planning and developing more adequate recreational facilities for the people of the United States.

Shortly after the passage of the Act, the Director of the National Park Service appointed a Recreation Committee, consisting of several of the branch and division chiefs with Assistant Director Wirth as Chairman. A small staff was detailed to work with the committee and consult with other agencies in the preparation of procedure for conducting the study in accordance with the terms of the Act. After several months, the work of the committee and staff resulted in publication of the manual of procedure for the Park, Parkway and Recreational-Area Study and a series of forms to be used in recording the data collected.

Last November, the Secretary of the Interior wrote to the Governors of the States, explaining the provisions of the Act and inviting their coöperation in conducting the Recreation Study. The response of most of the States has been encouraging and now forms the basis of our coöperation with them.

A small staff, detailed to this work, has been set up in the Washington Office to work through corresponding staffs in the four Regional Offices. The regional staffs consist of a Regional Supervisor, a Regional Recreational Planner in Regions 1 and 2, statisticians, draftsmen, and clerical personnel, supplemented by the regular technicians, landscape architects, foresters, geologists, historians, biologists, etc. There are now working under the direction of the Regional Supervisors approximately 30 State Supervisors and Assistant State Supervisors. The territory covered by these key men varies in accordance with the size of the State, density of population, and expediency in spreading a limited personnel to cover the entire country. In a few of the larger and more populous States, two men have been assigned. In some cases, there is a State Supervisor for one State. More often, however, it is necessary to assign one man to two States and, in some instances, two men to three States.

Consistent with the coöperative nature of the Study, the assignment of this limited personnel has not been made with the understanding that these State Supervisors will collect the information and formulate recommendations for the States to follow; they have been assigned to the States as our representatives for the purpose of working with the state authorities and assisting them in every way possible to get the study programs under way within the States.

For the purposes of conducting this Study, it has seemed advisable to consider it in two distinct phases: (1) the inventory stage, which will include the securing of factual material and (2) the study phase, which

will include an analysis and appraisal of findings and the formulation of recommendations for meeting the future needs of the people. The first or inventory stage is the one now under way.

The information gathered in the study will be recorded on maps and charts and in reports.

It is hoped that, as the study proceeds, there will be a series of maps showing existing areas and recommended additions, with sufficient supplementary text to furnish a complete picture for planning and recreational needs and preservation of worthwhile scenic, historic, and scientific areas in every State.

The following studies, which will supplement the Recreational Study, have been completed or are now under way.

1. The Historic Sites Survey, directed by the Historic Sites Act, now being conducted by the National Park Service.

2. An analysis of state park legislation, made by the National Park Service.

3. Studies of numerous areas proposed for national park or monument status, made by the National Park Service.

4. A recreational study, being conducted by the United States Forest Service.

5. Municipal park study, made, jointly, by the National Recreation Association and the National Park Service.

6. Highway Planning Survey, being conducted by the Bureau of Public Roads.

7. Camping survey, being made, jointly, by the American Camping Association and the National Park Service.

8. Studies being initiated by the National Park Service with reference to the attendance and use and the cost of maintenance in various types of recreational areas.

We are now in the process of effecting a working relationship with the Department of Agriculture, which includes the Forest Service, Bureau of Public Roads, Biological Survey and Resettlement Administration; the Department of Commerce, which includes the Bureau of Lighthouses, Bureau of Fisheries, and Bureau of Air Commerce; the Procurement Division of the Treasury Department; the War Department; and other agencies, including Tennessee Valley Authority, National Recreation Association, and the American Camping Association.

It is evident that the Recreation Study is no longer a vain hope; it is a coöperative undertaking now in operation. It is a continuing study and not just another report. Conditions will change and human requirements likewise. Data and policies now collected and formulated must be constantly reappraised in the light of new facts. In the permanent nature of the study lies its greatest potentialities for human good.

Many States accept that responsibility and have already made remarkable progress in assembling and analyzing the data. But the ultimate success of the study depends upon the States: How far will your home State and my home State go in assuming the responsibilities that each State holds to be its sovereign right?

State Park Legislation

THE PRESENT STATUS*

ROY A. VETTER, Assistant Attorney, National Park Service, Washington, D. C.

WHILE the state park movement is not of recent origin, the year 1933, with the initiation of the ECW program, and the years following, have witnessed its decided growth.

Most of the States have enacted park laws during this period. Some of these have been of major significance, others minor. Some bear the earmarks of politics, and largely reflect changes in party power and fortunes. In some States legislation still smacks of the horse-and-buggy days, and needs to be substantially revamped in purpose, scope and authority. And yet without adequate legislation, there can be no progress. States wherein the park movement has made the greatest advancement are States whose park laws are fundamentally sound and broad.

It seems proper and profitable to review what has transpired in this field during the past few years:

Reference to state parks in *Alabama* is found for the first time in the Acts of 1927. By amendment in 1935, the statutes were materially broadened by authorizing the acquirement of park areas by gift, purchase, lease or condemnation, and providing that in the purchase of lands, agreements may provide for a division of payments over a period of years, in which case payment may be secured by mortgage. By amendment of 1937, land for parkways was included within the foregoing provisions. Under the provisions of an Act of 1933, all lands purchased by the State at tax sales were subject to redemption at any time before title passed out of the State. Obviously, this precluded the development of such lands for park purposes. This situation was remedied by Acts of 1935, which provide that lands bid in by the State at tax sales shall, after three years, be subject to conveyance for use as state parks or forests, or for the purpose of exchange for other lands which may be suited for park or forest purposes.

Alabama's state parks are under the jurisdiction of the State Forestry Commission. The Act creating the Commission has two unique features peculiar to this State alone and therefore worthy of note: First, members are appointed to serve during good behavior. This is in conformity with a Constitutional provision, which provides that "no office shall be created, the appointment to which shall be longer than during good behavior." The effect of this is to give members life tenure so long as they behave themselves. Secondly, vacancies occurring are to be filled by the remaining members, thus constituting a self-perpetuating body.

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

Alaska. There are no laws providing for Territorial parks. An initial step in this direction may be considered to have been taken with the passage of an Act in 1935, creating the Alaska Planning Council. The Act directs the Council to make inquiries, investigations and surveys concerning the resources of all sections of the Territory, including recreational facilities.

Arizona continues to be a blank spot on the legislative map. During 1935 a Bill was introduced authorizing the State Land Board, through a State Park Commission, to administer and control all state parks, public campgrounds, monument sites, and sites of historical interest, as constituting the state park system. This Bill passed the Senate but was tabled in the House. During the 1937 Regular Session another and more comprehensive Bill was presented, which also failed of passage. The Governor has recently been importuned to include state park legislation in his call of a second special session to be convened in the near future, in which event another Bill is ready for introduction.

Arkansas first created a State Park Commission in 1927. This law was repealed in 1937, by the enactment of a law substantially expanding the purposes and scope of the present State Park Commission, and with corresponding broadened powers. Among the major provisions of the present law is its recognition of the mutual benefits to be derived through coöperation between the State and its political units in park matters. Generally, past enactments have made little or no provision for coöperative activities, and may be cited as one of the major deficiencies of the statutes. As a matter of law, counties, cities and towns are but agencies of the State, created for the purpose of exercising part of its powers. The acquisition, operation and maintenance of parks is recognized generally by the courts as a governmental function, and whether it be exercised by one or the other, all parks within the State are impressed with a common interest, and readily and advantageously lend themselves to coöperative action. It is, therefore, encouraging to observe that this phase of park legislation is now receiving substantial recognition.

By Acts of 1933, *California* authorized the charging of fees, rental and other return for the use of state parks.

As early as 1887, the *Colorado* Legislature, by Special Act, made provision for a state park. The provisions of this Act were never executed. No further state park legislation was enacted until 1937, at which time the members of the State Board of Land Commissioners were designated Trustees of a State Park Board charged with the duty to control, develop and maintain all state parks, monuments and recreational areas. Undoubtedly this enactment is the basis for the initiating of a system of state-owned parks and recreational areas.

By amendment of 1935, *Connecticut* authorized the development of recreational facilities in the state forests. Both forests and parks are under the jurisdiction of the State Forest and Park Commission.

The State Park Commission of *Delaware* was created by Act approved in May, 1937. It is made the duty of the Commission to preserve and protect the scenic, historic, scientific, prehistoric and wildlife resources of the State, and to make them available for public use and enjoyment. The Act is broad in scope and purpose, and reflects a substantial advancement of park and recreational matters as a state responsibility.

In order to establish, develop and maintain a system of state forests and parks, the *Florida* Board of Forestry was authorized, by Acts of 1935, to acquire lands by gift, purchase or otherwise. State forest and park lands may be pledged for funds with which to develop or otherwise improve its holdings. Acts of 1935 further authorized the Board to establish a Department of State Parks, to be known as the Florida Park Service, to be administered by the Board for the purpose of acquiring, developing and administering state parks in coöperation with other agencies.

Georgia, by Acts of 1937, created a Department of Natural Resources. Inasmuch as the Director of the Division of State Parks, Historic Sites and Monuments is to report, no comment respecting its broad provisions will be made other than to advance the opinion that Georgia has gone far in the matter of park legislation. Particularly is this true in the face of a statement made last year by the then State's Attorney General that Georgia legally had no state parks.

Idaho, by Acts of 1935, directed the Board of Land Commissioners to integrate and unify the policy and administration of land use, and to determine the best use or uses, viewed from the standpoint of general welfare, to be made of state-owned land. The Board may also select and purchase, lease, receive by donation, hold in trust, or in any manner acquire for and in the name of the State, such tracts or leaseholds of land as it may deem proper. By previous legislation the Board is also authorized to withdraw from sale state-owned lands bordering on or in the vicinity of any lake, waterfall, spring or other natural curiosity. At the moment Idaho has but one state park, which is under the supervision and control of the Department of Public Works. It is obvious, however, that the legislation cited has laid the foundation for a system of state parks.

Act of 1933 abolished the *Illinois* Park Commission, transferring its rights, powers and duties to the Department of Public Works and Buildings. The Act created an advisory and non-executive Board of Park Advisors, to advise relative to the construction, improvement and maintenance of state parks and monuments.

Indiana, by Act of 1933, and subsequent Executive Order of the Governor, abolished its Conservation Commission, the Administrative Officer of the Department of Public Works being made the Commissioner of the Department of Conservation. Park matters continue to be a function of the Department of Conservation.

During Colonel Lieber's régime, and again in 1937, the General

Assembly authorized the levying and collecting of a direct tax for the purpose of acquiring lands for a state park. A tax of two mills on each \$100 worth of taxable property is imposed for a period of seven consecutive years. Funds thus raised may also be expended in the operation, development, improvement and beautification of the park.

Iowa created a Department of Conservation in 1935. The Department is under the direction of a Conservation Commission, which in turn employs a Conservation Director as its administration officer. Park matters are administered through a statutory Division of Lands and Waters.

Among the powers delegated to the Commission is that of promulgating rules and regulations. The Commission has recently experienced Constitutional difficulties in this connection. In a recent criminal action the defendant was charged with a violation of its rules, and was convicted and fined in the Justice Court. He thereupon appealed to the District Court, where he interposed demurrers to the information for the reason that the crimes charged were not a violation of any statutory law. The demurrers were sustained on the ground that the Legislature has no authority under the Constitution to delegate legislative power to any commission or board. The State appealed to the State Supreme Court, which affirmed the finding of the District Court, and held that rules and regulations adopted and published by the Commission were without authority and therefore void. The situation has since been corrected by incorporating the Commission's rules and regulations in an Act of the 1937 General Assembly.

Kansas, like *Iowa*, has encountered Constitutional difficulties within the period of our review. By Act of the Special Session of 1933, the Forestry, Fish and Game Commission, which has jurisdiction over state parks, was authorized to borrow money to be used in all matters pertaining to the development of the natural resources; control and utilization of water; prevention of soil erosion; flood control; also with authority to use such funds to build and construct reservoirs, lakes, dams and embankments for impounding water on public forestry, recreational grounds, and fish and game preserves, and in the improving of such recreational grounds and reservations with forest trees, shrubbery and roadways. The validity of the Act was attacked, and upon appeal to the State Supreme Court it was held that the state debt then being in excess of the Constitutional limitation, further indebtedness could only be incurred by a referendum, for which the Act did not provide.

Kansas has definitely encouraged the transfer of lands to the State by the provisions of a law of 1933, which provides that whenever any person donates real estate to the State for use as a state park, and upon which real-estate taxes have been levied and assessed, and upon which charges and penalties have accrued, the commissioners of the county in which such real-estate is situated are authorized and directed to remit and cancel all such taxes, penalties, and charges.

In 1934 the *Kentucky* State Park Commission was abolished, its functions being transferred to the Department of Public Property. In 1936 a Department of Conservation was created, in which are vested all

state functions relating to parks. Existing powers are broad in scope and purpose. Negotiable bonds may be issued to defray the cost of acquiring land, facilities, devices, equipment and conveniences. Bonds issued are to be payable as to principal and interest from revenue derived from the operation of the parks. Authority is granted for levying and collecting fees for the use of the parks and facilities.

Louisiana established a State Parks Commission in 1934. This law was supplemented and materially strengthened by additional legislation during 1934, 1935 and 1936. Louisiana, like Kentucky, may borrow money and issue certificates of indebtedness secured by a pledge of revenues, for the purpose of establishing and maintaining parks and for general expenses.

The *Maine* Legislature created a State Park Commission in 1935, charged with the control and management of all state parks and monuments, Baxter State Park excepted, which is administered by an independent Commission created by Laws of 1933. The term "park" is defined by the Law of 1935, both as to characteristics and size of areas. Lands may be acquired by purchase, gift, or by eminent domain. However, the right of eminent domain may not be exercised to take any area or areas in any one park which, singly or collectively, exceeds 200 acres.

By Act of 1935, *Maryland* broadened its laws by authorizing the acquirement by "lease, purchase or otherwise" of lands deemed suitable for state parks, also authorizing expenditures for management, development and utilization. Uniquely, state parks are under the jurisdiction of the University of Maryland, and are administered through the Department of Forestry.

Massachusetts, by Resolve of the General Court in 1933, created a special commission to make an investigation and study of the lands and waters which are under the control of the Commonwealth or any of its political units, with a view to determining whether or not any of such lands or waters may be used for the purpose of providing further recreational activities. By Resolve of 1934, the investigation and study were continued for another year.

Minnesota created a statutory Division of State Parks within the Department of Conservation during 1935. By Act of April, 1937, the Conservation Commission was abolished, the supervision and control of the Department being vested in the Commissioner of Conservation. By Acts of 1933, amended in 1935, and further amended in 1937, the Department is authorized to make charges for use of the parks. Certain fees are fixed by law.

By Act of the 1934 Session of the *Mississippi* Legislature, a Commission was created for the purpose of surveying all state-owned lands to determine their adaptability for use as state parks or other public purposes. Findings of the Commission are to be submitted to the supervisors of the county affected for a public hearing. If, after such

hearing, the transfer be approved, the Governor may set aside the lands for the described purpose. By Acts of 1936, the Mississippi Legislature created a State Board of Park Supervisors to have full jurisdiction, supervision and management of all state parks. Members are selected by the Governor from the appointed members of the State Forestry Commission.

An amendment to the *Missouri* Constitution was approved by the electors in November, 1936—submitted by initiative petition—to become effective July 1, 1937. Under the provisions of the amendment, the control, management, restoration, conservation and regulation of the forestry and wildlife resources of the State are to be vested in a Conservation Commission. The amendment is of interest to the state park movement by reason of failure to incorporate park and recreational matters within the Conservation Department thus created, thereby giving Constitutional recognition to these governmental functions.

By Acts of 1935, the Commissioners of any county in *Montana* are authorized to convey to the State or to the United States, any tract of county-owned land not exceeding 1,280 acres to be maintained by the State or the Federal Government as a public park or recreational ground. By Act of 1937, the State Board of Land Commissioners is authorized to accept gifts, donations or contributions of land suitable for park purpose.

The 1935 Legislature of *Nebraska* authorized the exchange of lands between the Board of Educational Lands and Funds and the State Game, Forestation and Parks Commission, whenever lands of the former are deemed of more value for recreational purposes.

Nevada created a State Park Commission in 1935, to have the charge, care and supervision of all state parks. The law was amended in 1937 by authorizing the Commission to cooperate with Federal agencies in the maintenance and development of all parks.

Act of 1933 granted authority to the *New Hampshire* Forestry Commission to purchase suitable tracts of land for use for public reservations, and to make provisions for the management of the same. The Act provides that the words "public reservation" and "state forest or reservation" as used in relation to public forest lands, are to be interpreted to include the use of such forests and reservations for "public recreational and park purposes." By Act of 1935, the title of the Commission was changed to "Forestry and Recreation Commission."

By Acts of 1936, and again in 1937, *New Jersey* made provision for the creating by interstate compact of the Palisades Interstate Park Commission as a joint corporate instrumentality of the States of New Jersey and New York.

New Mexico created a State Park Commission in 1935. Authority is granted to acquire land for park purposes by gift or purchase, and to hold, develop, maintain and operate the same as state parks. Gifts of money, equipment or material, either for state park purposes generally,

or for any designated state park or state park purpose, or as an endowment for any particular state park, may be accepted.

In order to conserve the natural beauty of and the investment of the State in state parks and parkways, by preserving and regulating them for public use, the *New York* Assembly, in 1934, prohibited the erection or maintenance within 500 feet of the border of any state park or parkway of any advertising sign or device except under written permit from the regional state park commission in which the park or parkway is located.

Exceptions are signs erected or maintained upon property in connection with a business conducted thereon, such signs being limited as to size and location. By amendment in 1935, the foregoing provisions were made applicable to all parkways constructed within the limits of a city with state funds and/or Federal highway aid. (Amendment of 1934 to the Conservation Laws reduced the number of park regions from twelve to eleven, the number existing prior to 1932.) By Laws of 1937, the Assembly provided for the creation by interstate compact of the Palisades Interstate Park Commission as a joint corporate municipal instrumentality of the States of New York and New Jersey.

The *North Carolina* General Assembly of 1933 provided for the regulation of the recreational use of all state lakes. By Acts of 1935, the Department of Conservation and Development is authorized to accept gifts, donations or contributions of land suitable for park for forestry purposes; also to contract for the acquirement of lands by lease, purchase or otherwise. Expenditures are authorized for management, development and utilization. Obligations for the acquisition of lands must be paid solely from revenues derived from the areas.

By Acts of 1935, the *North Dakota* Historical Society is authorized to acquire in behalf of the State, by purchase, gift or condemnation, lands for state park, monument, or recreation reserve purposes; also to set aside state-owned lands for such purposes. The Society was further authorized to create a State Park Committee, to consist either of members of the Society's Board or other qualified persons, to exercise and perform the powers and duties of the Society with respect to such areas. Acts of 1935 also authorized the State Forester to accept gifts, donations or contributions of land suitable for park purposes; also to enter into agreements for acquiring by lease, purchase or otherwise lands deemed desirable for state parks.

Acts of the *Ohio* General Assembly of 1935 authorized the Director of Highways to receive or obtain by gift, purchase or appropriation, small tracts of land adjacent to the state highway system for use as roadside parks. Highway rights-of-way from which it is proposed to divert travel in the construction, relocation or other improvement of the state highway system are likewise made available for use as roadside parks. Ohio, like a number of other States, has provided for the construction, reconstruction, improvement, repair and maintenance of

roads within the boundaries of state parks by the State Highway Department, also for the relocation, construction and maintenance of roads leading from a state highway to state park areas; the cost of such work to be paid from state highway funds, thus freeing the park budget from a major item of expense.

If the number of similar enactments during the past few years can be accepted as criteria, this is being recognized as good policy, and therefore good legislation. The law should, of course, provide that such work be done upon agreement between the Highway Department and the Park authority. The Ohio General Assembly now has pending before it a Bill designed to revamp the entire conservation setup through the creation of a Department of Natural Resources. Provision is made for a Division of State Parks, which will act as an operating division in the administration, development and improvement of state parks, and in cooperating with other public park agencies.

The *Oklahoma* Planning and Resources Board was created by Act of the 1937 Legislature, which is given administrative control over all state parks, monuments, lakes and land owned by the State for recreational purposes. A statutory division of State Parks was created for the carrying out of the broad provisions of the Act relating to park and recreational activities.

By Laws of 1935, the *Oregon* Legislature authorized any county or municipal corporation to convey lands to the State for park purposes. (Also, any county court may designate as public parks or recreational areas any real property acquired for delinquent taxes or otherwise, and which may not be alienated for any purpose unless authorized by a majority of the voters; except that such lands may be conveyed to the State or to the United States for public use.)

By Acts of the 1935 General Assembly, *Rhode Island* created a Department of Agriculture and Conservation, with a Statutory Division of Forests, Parks and Parkways. The Division performs all powers and duties, theretofore vested in the Bureau of Forestry and the Metropolitan Park Commission, which were abolished by the Act. The Chief of the Division is also given charge of all monuments erected by the State.

By Acts of 1935, the *South Carolina* Commission of Forestry was authorized to accept gifts, donations and contributions of land suitable for park or forestry purposes; also to acquire land by lease, purchase or otherwise. Expenditures are authorized for management, development and utilization. Obligations for the acquisition of lands must be paid solely and exclusively from revenues derived from the areas. Acts of 1935 also created the King's Mountain Table Ground Commission.

South Dakota created a State Park Board by Acts of 1935, empowered to acquire park areas by purchase, lease, gift, or condemnation; also to develop and administer all parks, Custer State Park excepted, which is under the jurisdiction of an independent Board.

Tennessee, by Act of the General Assembly of 1937, created a Department of Conservation, with broad authority to acquire by gift, lease, purchase or eminent domain, areas, properties, lands, or any estate or interest therein, of scenic beauty, recreational utility, historical interest or remarkable phenomena, as state parks and recreational areas. In acquiring land, the Department is to be governed by the needs of the State, and shall not acquire lands of low scenic, recreational or historical value, or areas of purely local significance.

By Acts of 1933, the *Texas* State Parks Board was authorized to acquire state park sites by purchase, gift or otherwise, and to improve, beautify and equip the same to such extent as it may deem advisable. Under the provisions of the Act, authority to purchase was limited to two years. In payment for sites and their improvement and equipment, or for the purpose of borrowing money, the Board was authorized to issue evidences of indebtedness, to be secured by pledge of its rents, revenue and income from any source other than legislative appropriations, it being a requirement that projects so financed are to be self-liquidating and supported by charges other than by taxation. Authority was granted to make charges.

The charging of fees, rental and other charges for the use of the parks, their services and facilities, also the granting of concessions, is increasingly receiving attention. While the making of such charges or agreements is one of policy, legal authority to do so should be expressly granted. No one will find fault with such a policy so long as it is not pursued to a degree detrimental to the primary purposes and objectives of the areas. The line of demarcation may at times be difficult to define. Services or facilities which promote the full use and enjoyment of the area may properly be subject to reasonable charges. Catch-penny circuses and carnival devices or services, offered for the purpose of increasing needed revenue, certainly have no place in state parks. Some measure of control over the latter is to be found in a number of state Constitutions, which expressly prohibit the State from engaging in commercial activities. In some States the courts have held that even in the absence of an express prohibition, the State has no power, unless the Constitution so provides, to embark in any trade or service which involves the purchase and sale of an article of commerce for profit.

By Acts of 1933, the *Utah* State Board of Park Commissioners was authorized to promulgate and enforce regulations to protect from vandalism or injury the prehistoric ruins and relics, and archeological deposits of the State, also all natural bridges and natural scenic features and formations.

By Acts of the 1935 General Assembly, *Vermont* created a Department of Conservation and Development. One of the requirements of the law is that the recreational interests be represented on the administrative board.

By Act of the 1933 *Virginia* General Assembly, the State Commission on Conservation and Development was authorized to purchase or otherwise acquire for park purposes such real estate as the Commission

deemed proper to extend the park system of the Commonwealth. By Acts of 1936, authority was vested in the Commission to grant concessions, execute leases, and to grant easements affecting any land or other property owned or held.

By Act of the 1937 session of the *Washington* Legislature, 25 per cent of all fines and forfeitures collected for violation of the Motor Vehicle Act, either within or without incorporated cities or towns, are appropriated for the support of state parks and parkways. This superseded a previous provision that 75 per cent of all fines and forfeitures collected outside of incorporated cities and towns were to be made available to the State Parks Committee. Acts of 1937 further provided that upon the petition of 100 qualified voters within any county, the commissioners may transfer designated parcels of county-owned land to the State for park purposes.

West Virginia created a State Conservation Commission in 1933 as an advisory body to the Director of Conservation. The Director is granted broad powers, including authority to acquire lands by gift, purchase, lease, agreement or condemnation, for state parks, for the purpose of preserving scenic or historic value, or natural wonders.

By Act of 1935 Legislature, the *Wisconsin* Conservation Commission was directed to exercise police supervision over all state parks. Not only are Wisconsin's park laws broad and sound; the State Constitution is worthy of mention. Article XI, Sec. 3a, provides that the State or any of its cities may acquire by gift, purchase, or condemnation, lands for establishing, laying out, widening, enlarging, extending and maintaining memorial grounds, streets, squares, parkways, boulevards, parks, playgrounds, sites for public buildings, and reservations in and about and along and leading to any or all of the same; and after the establishment, layout, and completion of such improvements, may convey any such real estate thus acquired and not necessary for such improvements, with reservations concerning the future use and occupation of such real estate, so as to protect such public works and improvements, and their environs, and to preserve the view, appearance, light, air, and usefulness of such public works.

Wyoming created a State Park Commission by Acts of 1937, with authority to acquire and accept gifts of land suitable for state parks, public campgrounds, or for public recreational use; also to set aside suitable tracts of state-owned land for any of the purposes of the Act.

During the period from 1933 to date, some 40 statutory State Planning Boards have been created, all of which concern themselves more or less with the advancement of park and recreational matters.

CALIFORNIA PARK LEGISLATION*

DAN R. HULL, Landscape Engineer, California State Division of Parks,
San Francisco, Calif.

JUST ten years ago California passed three important state park laws. The first of these laws had to do with the formation and duties of a Park Commission, it being an act to provide that the department of natural resources, through the State Park Commission, shall have control of the state park system; to establish and define the state park system; to define certain powers and duties of the state park commissioner; to make an appropriation for carrying out the purposes of this act; and to establish a contingent fund and a revolving fund.

Among other things, it enacted that:

Section 1. The department of natural resources, through the state park commission, shall have control of the state park system of California.

Section 2. All parks, public camp grounds, monument sites, and landmark sites, and sites of historical interest, outside the limits of incorporated cities, heretofore or hereafter created or acquired by the State or which are under its control shall constitute the state park system.

Section 3. The state park commission shall administer, protect and develop the state park system for the use and enjoyment of the public.

Section 4. The state park commission shall have the power, right, and authority within its discretion to receive and accept in the name of the people of the State of California any gift, devise, grant, or other conveyance of real property or any interest therein.

The second law had to do with the survey of possible park areas within the State, and was an act authorizing the state park commission to make a survey and report on sites suitable for state parks; authorizing the commission to receive gifts of money for the purpose of carrying on this survey; and providing for an appropriation for the carrying on of this survey.

This survey became known as the Olmsted survey, and is doubtless familiar to most of you. A sum of \$25,000 was set up in the act for this survey, and I might say that the survey was not a review of a given few areas, but the State was thrown wide open and everyone—the butcher, the baker, the candle-stick maker—allowed to send in his or her ideas of suitable areas in the State, over 200 in number, and these were reviewed by Mr. Olmsted or his assistants, of whom I happen to be one.

From these proposed areas, for the most part, have been chosen the 70 parks comprising the California state park system, and there are still areas we hope to acquire.

The third law, known as the six-million-dollar bond issue, was an act to provide for the issuance and sale of state bonds to be known as "California state park bonds," to provide for and create a fund for the

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

acquisition of lands and other properties in California for state park purposes; authorizing the expenditure of said funds for the purposes herein enumerated.

We so often find in legislation that laws are passed but no appropriation is made to carry out the act, but here was a case of laws and appropriations which all will agree was a perfect setup. The six million dollars was to be matched by private or other than state funds. Thus it actually made available twelve million dollars, a large proportion of which has been expended—all in fact, except certain amounts for rounding out of existing areas.

Coming down to present legislation, we find that a budget of \$156,000 annually for the next two years has been appropriated. Revenues from the state parks for the biennium 1937-39 are estimated at \$100,000, which is three times the revenue in the 1931-33 biennium. The state parks under this budget will meet one-third of the state appropriation out of their own revenue.

A bill which interested all of us in California, and which Mr. Drury informed me about in the memo received since arriving here, and which would have provided \$500,000 per year from state tideland oil royalties, was passed by an overwhelming vote in the Assembly, but here is the *sad* part of the story: it died in the Senate Committee.

Certain acts have been passed by both houses of the legislature, but it is not yet known what disposition will be made of them by the Governor who has thirty days within which to veto or sign. Of these, two are of more than local interest, and might well be included in your respective state park laws:

An act authorizing the State, Counties or other subdivisions to lease lands for park purposes for a period of years with option to purchase. No appropriation.

An act authorizing Counties to acquire park lands in consideration of cancellation of back taxes on these or other lands in the same ownership.

Summing up the California state park situation, we find:

I. Number:	1931, 18	1937, 70	Increase, 52
	4 times as many parks.		
II. Value:	1931, \$2,000,000	1937, \$14,750,000	Increase, \$12,750,000
	7 times as great an investment.		
III. Acreage:	1931, 17,000 acres	1937, 300,000 acres	Increase, 283,000 acres
	17 times as many acres.		

APPROPRIATIONS

Appropriated 1937	\$156,000
Appropriated 1931	\$147,000
Increase	\$9,000
Attendance at State Parks, 1936—	6,000,000 people.
Revenues from State Parks, 1937—	estimated at \$50,000.
This is three times the revenue in 1931.	

NEW LEGISLATION IN GEORGIA*

C. N. ELLIOTT, Director, Division of State Parks, Historic Sites and Monuments,
Atlanta, Ga.

THERE is no need to explain that state park work is new in the South. Until comparatively few years ago, no reason existed for state parks, or for any other type of recreational area. The average Georgia citizen was essentially a man of the forest, or of the soil. Each day of the year he worked, tilling the soil, harvesting, wresting the necessities of life from the wilderness and from the earth. But whether he was farmer or clerk, the average Georgian was much too busy from daylight until dark, from one week to the next, maintaining his home, earning his daily bread, supporting his family. He simply did not have time to play. The man with more money to spend for his amusement, spent it a long way from home. He went to California or Monte Carlo or Italy.

Today, we are faced with an entirely different situation. With shorter hours for the working man, with excellent paved highways, and transportation facilities unparalleled in history, the average man is faced with the problem of how to use his leisure time. He no longer need be a stay-at-home. True, he may not be financially able to go to the ends of the earth, but he is able to carry his family a hundred or more miles to some spot where they can enjoy the out-of-doors and all activities related to lakes and forests and mountains. Swimming, boating, fishing, picnicking and all outdoor sports have become more popular during the last few decades.

Probably the most important and most popular development during recent years to fill the recreational needs of our people has been the selection and establishment of state parks. The demand for this type of park has grown to such an extent that the recent session of the Georgia Legislature created a new Division of State Parks for the rapidly growing job of developing and maintaining the Georgia system of parks.

I cannot think of a more delightful task at this moment than to sit down and read to you the Act of 1937 by the General Assembly of Georgia, creating the Department of Natural Resources with its four subdivisions: Forestry; Wild Life; Mines, Mining and Geology; and State Parks. This bill carries its own story and the mere reading of it would convey more information than I can possibly pack into a few minutes of talk, but I hesitate to allow you that consideration. Down in Georgia we are so intensely interested in the possibilities of this new setup that we like to talk about it, whenever and wherever we can.

The first three divisions just mentioned were reorganized from two

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former state departments. From the Department of Forestry and Geological Development came the Division of Forestry and the Division of Mines, Mining and Geology. The new Division of Wild Life was once the Department of Game and Fish. The newly created division under this Act is the Division of State Parks, known more formally as the Division of State Parks, Historic Sites and Monuments, and since it is so new and ambitious, since it has such a full program ahead of it, and since it is the Division in which we are most interested, I should like to confine my few remarks to the Division of State Parks.

At the time of the passage of the Natural Resources bill, Georgia was thought to have eight state parks, partially developed. In reality, we had only one area which legally belonged to the State. This area—Indian Springs—had been ceded directly from the Creek Indians to the Commonwealth, and had never been in private ownership. Deeds had been drawn for the other seven areas, but not one of these deeds had been recorded or accepted by the State. Under the old law, there was no Division of Parks. The Department of Forestry and Geological Development was doing the best it could for parks with its limited funds available, but under this law, land could not be accepted by the Department of Forestry for any purpose other than Forestry, and as far as we are able to ascertain, state parks were illegal. One of the first jobs of this new Division was to have the deeds rewritten in order that they could be recorded in fee simple by the State.

Today, we have nine state parks. Our ultimate goal is fifteen, with which we think we can have a full rounded state park system for Georgia. Some of you have read the new Department of Natural Resources bill. Several pertinent features in the part relating to the Division of State Parks might be of interest to you.

The Division is given the authority and power to make a survey of the state recreational facilities and resources to determine which lands are suitable for park or parkway purposes. Each two years, we are to report the results of our investigation to the General Assembly and they, in turn, theoretically will allot such moneys as are necessary for the acquisition of additional park lands. Land may be acquired where the money is available, however, through gift, bequest, contribution or otherwise for the extension of the state park system, if the Commissioner and the Division think it advisable.

The law also gives the new Division authority to mark, maintain or preserve any historic, archeological or scientific site, to construct and operate suitable public service privileges and conveniences and for the same to make reasonable charges, and in its discretion to grant concessions to any responsible firms. All moneys received from the operation of the state park system are to be set up as a rotary fund for maintenance and for acquisition of land.

One nice feature of this bill provides that all moneys not expended by

the end of the fiscal year do not revert to the General Treasury, but constitute a continuing fund to be available until expended.

I think that one of the largest, most important and most interesting tasks placed in the hands of this new department is the one of highway beautification. Under the new act, the Highway Department is authorized indirectly to expend state highway funds in the construction of roads, to and through any state park where the Commissioner and State Highway Board deem advisable. That means that where necessary roads will be oiled and surfaced and highway-beautification work done. The new Highway Department has, in fact, already taken over the job of building our new Pine Mountain Parkway, through the Pine Mountain State Park, and along the crest of the ridge to Warm Springs. This road will be surfaced and beautified in accordance with the very best authority. In addition, there is other highway-beautification work to be done. Most of the roads in the Georgia system are not attractive. They are cluttered with signs. Many roadsides are rough, red, ugly banks with no vegetation to cover them. For years, our Highway Department has had a habit of pulling all dirt from the ditches back to the center of the road or on the shoulders, and even today at the completion of paving projects, those red banks are left standing. Grass is sometimes planted on the highway shoulders, but usually, after a good stand is obtained, the counties, following their age-old system, run their road scrapes along the shoulders to clean out the ditches and incidentally remove all the grass with their accumulation of silt in the ditch. This practice will be discontinued. Not long ago, someone made the statement that half the color in our muddy southern rivers was from ditches and banks along the roadside. That may be true. If it is, we invite you to Georgia today, and we invite you to come back to Georgia a few years from now to see what progress we have made in rectifying this condition. Just as much as we want Georgia to have the best system of state parks of any State in the Nation, we want her to have a system of beautiful highways, which will be a delight to every visitor, whether Georgia is his destination or whether he is merely passing through the South.

We spoke of marking, maintaining and preserving our historic sites. The other day, we wrote approximately 150 letters to the county historians in Georgia, requesting that they furnish us the name, location and a very brief description of all historic sites in the State. When these data have been collected, we then plan to go before the civic organizations, and ask their cooperation in marking the most important of these historic sites. We believe that in this way we shall be able to arouse a great deal more interest in the history and archeology of Georgia. When a sufficient number of these sites have been marked, we then propose to prepare a pictorial map, showing each of those sites by number, and a booklet giving a brief description of each and how it may be located by any visitor or tourist interested in that particular spot.



Refectory Building, Longhorn State Park, Texas
Courtesy U. S. Department of the Interior



Guest cabin in Devil's Den State Park, Arkansas
Courtesy U. S. Department of the Interior



Combined truck and foot bridge in Backbone State Park, Iowa
Courtesy U. S. Department of the Interior



The Needles, Custer State Park, South Dakota
Courtesy U. S. Department of the Interior

ARKANSAS LEGISLATION*

THOMAS W. HARDISON, Chairman, State Park Commission, Morrilton, Ark.

THE idea of a great area for public recreation in Arkansas, which at the same time would conserve one of the few remaining primeval forests of our State, had its beginning back in 1907; but at that time we knew nothing about state parks. I simply knew that near my home was an area of surpassing natural beauty that ought to be conserved for the benefit and enjoyment of future generations. In this I had the support of the Fort Smith Lumber Company, with whom I had come to this country as physician, and who owned most of the area that it was proposed to conserve. But after thinking and talking about it more or less constantly for fourteen years, during which time I received no helpful suggestion from any source, I was as much at a loss as to how to proceed as in the beginning. Finally, knowing that it was not the proper step to take, I asked our representative in Congress to introduce a bill providing for the acceptance of this small area—it was only 1,540 acres, as I recall—as a national park.

It happened that, as the bill was introduced, Stephen T. Mather, Director of the National Park Service, was en route to Hot Springs National Park, and our representative wired me to see Mr. Mather and try to enlist his support of the bill. After an hour's conversation with that kindest and most courteous of men, and with his assistant, Arno B. Cammerer, now Director of the National Park Service, I was told that our area was not suitable for a national park and advised to turn my attention to bringing about its acceptance as a state park.

I had never heard of a state park, and I doubt that anybody in my State had; but I took Mr. Mather's advice, and sustained by his constant encouragement, in a comparatively short time I had the satisfaction of seeing Petit Jean State Park created by a special act of the Arkansas Legislature. This was in February, 1923, and in May of that year I attended the Third National Conference on State Parks at Turkey Run State Park in Indiana. There I came under the influence of Colonel Richard Lieber, Major W. A. Welch, Dr. L. H. Pammel and others who were leading the state park movement. A year or so later, Raymond H. Torrey came to Arkansas as Field Secretary of the National Conference, and during this and several subsequent visits, Mr. Torrey gave aid of the most constructive and helpful kind. More than to any other man, we are indebted to him for the beginning of a public interest in state parks in Arkansas.

Though we had one state park as early as 1923, we did not have an adequate state park law until a few months ago. When Petit Jean State Park was formed, responsibility for its administration, for want of a

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

better agency, was placed in the reluctant hands of the State Highway Commissioner; and from one agency to another, mostly reluctant and altogether incompetent, the interests of the state park movement in Arkansas were shifted with changing political administrations until two years ago, when by sheer political accident we acquired a state park leader in the person of Attorney General Carl E. Bailey, ex officio Chairman of the State Park Commission, who saw something else in state parks than material for a new sort of campaign oratory.

During his two years as chairman of the commission, Carl Bailey took more than a perfunctory interest in state parks. He visited and became acquainted with the natural advantages and needs of each park. He envisioned the twofold scope of an intelligently planned and wisely administered system of parks in Arkansas, and, when he became Governor last January, one of his first recommendations to the Legislature was the passage of an act that would create a state park commission with the authority and the means to undertake a constructive work in Arkansas.

The bill that we have enacted in Arkansas is one recommended by the National Park Service, with slight alterations to fit the special needs of our State. It provides, in the first place, for an honorary commission—that is, one whose members serve without pay—of five members appointed by the Governor, and selected because of their interest in, and knowledge of, conservation and recreation; not because of the political influence they may have in their respective quarters of the State. The term of one member expires each year. The executive officer of the Commission is a State Park Director, who is paid a good salary and who is in the present instance a thoroughly competent man, having had four years' experience as project superintendent of our most important park.

The Commission may acquire by purchase, gift, trade, lease or condemnation any land that is deemed necessary or desirable for the extension of the state park system. It also may declare any state-owned land, including that forfeited for non-payment of taxes, a part of an adjacent or near-by park. By this means we have already added to Petit Jean Park approximately four hundred acres which we expect to consolidate with the main body by purchase of intervening tracts. This process can be continued indefinitely, bringing into the several park areas of the State thousands of acres of forest land at no cost at all.

Until this provision was put in effect, as fast as timbered land reverted to the State, it was grabbed up by one or another of the operators of numerous small sawmills throughout the mountains and stripped of everything that would make a two-by-four. In one instance a tract actually touching Petit Jean Park was completely denuded of pine by one of these conscienceless operators and the lumber hauled through the park to town.

One of the most important provisions of our law is that designating the State Park Commission as the sole agency for the control and management of state-owned parks and recreational areas of all types. This vest-

ing of exclusive authority in one commission has obvious advantages in efficiency and economy, and already has resulted in the prevention of the development of a number of small areas that could not be justified by public need, and which were in no sense conservation areas.

Other provisions embodied in the act make it possible for the Commission to deal competently with any situation which is likely to arise. On the whole, we believe that we have an act that meets our needs. But we recognize that our law, or the law of any State, must depend for its efficiency upon the ability and consecration of its administrators.

TENNESSEE LAWS

SAM F. BREWSTER, Commissioner, Department of Conservation,
State of Tennessee, Nashville

THE last Tennessee Legislature established a Department of Conservation for the State of Tennessee, and transferred to it the Division of Game and Fish, which had been under a Game and Fish Commission; a Division of Forestry, which had been under the Department of Agriculture; a Division of Geology, which had been under the Department of Education; and also transferred the rights, powers, and duties vested by law in the Tennessee State Park and Forestry Commission. The same Legislature, during session, also passed a bill creating a Division of State Parks in the Department of Conservation, as well as the Divisions of Hotel and Restaurant Inspection and State Information.

A bill establishing a Division of State Parks was drafted by Mr. J. B. Williams, of the National Park Service, and was passed without a single amendment. It gives the Division of State Parks under the Department of Conservation very broad powers in acquiring areas and in cooperating with various individuals and agencies in the acquisition and development of recreational areas. The Legislature approved an appropriation of \$70,000 for the biennium for the Division of State Parks. This money will be spent in cooperation with the National Park Service in developing of state parks, and in the operation of the areas which have already been developed.

The organization of the Division of State Parks will consist of a Director, who will have administrative responsibility of the Division and who will also serve as Park Authority and Procurement Officer in the National Park Service CCC program. Under him will be a Land Use Planner who will have responsibility for investigating and reporting on proposed park areas. He will also work very closely with the National Park Service in the National Recreational Study that organization is making. There will also be a technical staff, composed of a Landscape Architect, Architect, designing engineer and a construction engineer. In addition there will be such clerical help as is needed in handling the

work of the Division. While this is not the largest state park setup in the country, yet it is felt that it is a well-balanced group that will coöperate very closely with the National Park Service in the development of the state's recreational areas. Later it will be necessary to go more into the operation end of the state park program and additional personnel will be selected to be responsible for the operation of the areas developed.

With the possible exception of a Division of Archives and History, it would seem that the Department of Conservation has every division that could logically be placed under the Department. The Division of Hotel and Restaurant Inspection, under the Department, is rather an unusual circumstance but perhaps a fortunate one, in that the Department is concerning itself with building up the recreational advantages of the State, and in advertising its advantages, not only to the citizens of the State, but to the people of the United States. By having the Division of Hotel and Restaurant Inspection, it makes it possible to provide cleaner and more sanitary conditions for the state's guests.

During the last Legislature, in addition to the Reorganization Bill, which established the Department of Conservation, known as H.B. 275, and the State Park Bill, known as H.B. 1289, the Department of Conservation was fortunate in getting passed an almost model forestry bill, known as H.B. 1441, which gives the Division of Forestry legal authority to do almost anything needed to be done in forestry lines, also a new Game and Fish Bill, known as H.B. 1043, which for the first time in the history of the State provides sufficient funds to operate the game and fish work. The Hotel and Restaurant law is known as H.B. 1217, Advertising law is known as H.B. 1442, and the World's Fair Bill, known as H.B. 1065.

It is estimated that the Department of Conservation will have available approximately \$600,000 for Game and Fish work for the next two years; \$275,000 for Forestry work for the next two years; \$125,000 for geological work for the next two years; \$70,000 for state park work for the next two years; \$250,000 for State Advertising for the next two years; and \$200,000 for Hotel and Restaurant Inspection for the next two years.

The Department of Conservation is administered by one man, who is Commissioner of Conservation, responsible directly to the Governor. Under the Commissioner is a Director of each of the six divisions, who is responsible directly to the Commissioner. Governor Gordon Browning is a real sportsman and a real conservationist and is proud of his new Department of Conservation. The new laws and new setup have proved very popular with the people of the State, and it is believed that the Department will make great progress along conservation lines during the next few years.

State Park Planning

RECREATION FACILITIES IN THE STATE PLAN*

L. DEMING TILTON, Consultant, California State Planning Board

STATE PLANNING is a new adventure in the realm of government. It represents the broadest attempt yet made in this country to establish through democratic processes a more effective discipline over our environment. The purpose of the movement is to secure for the people all the benefits and advantages which come from wise use of resources and a harmonious, balanced development of the State.

It is significant that interest in state planning did not arise until recently, until modern science and engineering had provided the means by which the size, character and organic arrangement of the State could be understood. It is possible now to see it as a whole; to fly over it from end to end in a day; to comprehend the full richness of its mosaic.

SOCIAL AND ECONOMIC FACTORS IN RECREATION

A pronounced increase in activities that may be classified as recreation has occurred as a by-product of the release of time from work. The practice of granting vacations of two weeks or more with pay has been extended generally to all classes of technical, clerical and in some industries to skilled workers. These periods are generally used for motor trips, a sojourn at the lake, or a camping expedition in the mountains.

Single holidays of legal or patriotic origin come frequently and are increasing in number. They are spent in games and sports, picnics or other forms of recreation. The old religious scruples against the use of Sunday for anything but church-going, heavy eating and napping have melted considerably. These days are now available for recreation and are so used. The Saturday half-holiday has become almost universal except in commercial lines. Many industries and governmental agencies by establishing a five-day week have made Saturday a full holiday, thus offering two days out of every seven for trips and pastimes.

It must be admitted that many accessories are now available to facilitate the use of leisure time. These contribute in no small degree to the demand for a more satisfactory system of recreation areas and facilities. The use of mechanical aids in the home, such as automatic heaters, refrigerators, stoves, has made it easier for the family to get away. The automobile has contributed still more to this release of recreation impulses. It has given the citizen a new freedom and vastly extended the area within which he may seek pleasure and enjoyment.

The requirements of his work have made it necessary for him to live

*Condensed from a paper read at the Far West Regional Conference on State Parks, September 1, 2, 3, 1936.

in the city, which ministers poorly to his needs in the way of outdoor activities, but his larger earnings aid him to escape frequently from urban surroundings. The volume of pleasure traffic on highways, the numbers who move annually into summer homes, the new interest in house trailers are all evidence of this.

The lands, facilities and equipment devoted to the service of the multitudinous human interests characterized as recreation are rarely considered in toto or according to types. For a proper analysis of this problem, however, it is important that a broad classification of such equipment be undertaken.

On a state-wide scale we may note, among many others, the following major land units devoted to or strongly marked by nature for recreation.

Recreation Communities. Many cities in the State, some of considerable size, like Santa Barbara, Palm Springs and Newport Beach, exist primarily because of their recreation attractions.

Seasonal Colonies, such as are found in the cabin-site areas of National Forests, along the shores of lakes, on the borders of streams and in remote mountain and forest regions. California is dotted with recreational units of this type.

Camping Centers where tourists stop. These range from small roadside rest spots to large, well-equipped areas in public forests or along public beaches and river banks. The Russian River area contains many examples of such centers.

Hunting and Fishing Grounds, where natural conditions clearly call for reservations, either public or private, serving the sportsman.

Scenic Areas and Regions, embracing natural landscape features of notable quality. Millions of acres of California could be given this classification. The National Forests abound in scenic values.

Parks in which vegetation and landscape effects, either natural or created, form the dominant background of uses and constitute the primary attraction of the area.

Historic and Scientific Areas which deserve preservation and improvement because of their cultural value. In this class would come ruins of the Missions, the Indian village sites, La Brea Park, Los Angeles, arboretums, botanic gardens, zoos and outdoor museums.

Special Purpose Areas such as beaches, shores, lakes, rivers, canals, unique wildlife centers, bird and game refuges, primitive areas, sites for winter sports and the like.

Recreation Areas of the kind found generally in cities, which are devoted predominantly to active games and sports. In this category would come baseball fields, stadiums, golf-courses, athletic centers and children's playgrounds.

Pleasure Ways. The demands of the pleasure-seeking motorists are to be satisfied by distinctive types of scenic and pleasure highways. The hiker and horseman want trails and paths. The bicyclist, the canoeist, even the airplane owner seeks special facilities for his use when recreation bent.

It is not the purpose here to establish a definite classification or to undertake definitions. The object is merely to indicate at this time that a proper approach to the new problem of planning for recreation on a state-wide scale is through a comprehensive study of land utilization. All the desires and needs which spring from normal, healthy play impulses must find outlet through some specific use of land. The urge to

dance which is strong in young people may express itself in a commercial dance emporium in the city, in a roadhouse along the highway or in a public park or recreation center. The hunter seeks lands with an abundance of game. The worshippers of the sun demand more public beaches.

It is land, in the last analysis, that constitutes the broad canvas upon which the people themselves have broadly indicated their recreation needs. They have conceived and built what they have needed without guidance or the advantage of an over-all design. Now, through the technique of land-use planning we may start the creation of a system of recreation areas which will serve the people better because it more closely reflects an official understanding of present-day leisure-time problems.

THE PROBLEM OF PLANNING FOR RECREATION

It is important to state first that any program of planning for modern recreation which places major emphasis upon beauty spots is unsound. There is much more to this problem than the creation of a few additional state or local parks. Beautiful natural parks are not always found where a recreation area is called for. They are sometimes too remote to be of service in meeting mass demands. When acquired without supplemental areas for the accommodation of automobile parking, camping, active sports and athletics and similar uses of a somewhat destructive type, they soon begin to suffer from misuse and over-development. The parks and the values which they offer can best be maintained if they are parts of an adequate, properly diversified system of recreation areas fitted into the over-all pattern of highways, land uses and transportation facilities of the State.

In Orange County there is a good example of the lack of balance in a county recreation system. Irvine Park is the largest and most attractive back-country woodland park available to the citizens of this county and near-by Long Beach. Because of its popularity it has been "improved" with roads, structures, equipment and other facilities to such an extent that the magnificent oak grove and rich natural vegetation, which made it once truly a park, are being destroyed.

The only protection for such parks, if the unemployment relief program must be supported further, is the acquisition and development of new park areas. The relief forces in Orange County, for example, should be used for reclaiming low-value land for recreation use, creating new parks, building new facilities in other unserved sections of the county. The planning which should precede selection and acquisition of such areas is an imperative need throughout all California.

The problem here under review requires fundamentally (1) a full consideration of all the characteristics of the population, with particular reference to present and prospective recreational needs as related to current social and economic trends, (2) an inventory of existing facilities,

their present character and use and the relationship thereof to the present physical pattern of the State and an appraisal of their value and serviceability, (3) the scientific classification of all lands in the State, (4) establishment of an effective method of land acquisition for public use and the reservation of desirable land units and (5) reconsideration of existing state and local budgets in the interest of a more satisfactory apportionment of public funds for the support of recreation facilities and services. The scope of this statement does not permit more than a very brief reference to each of these major elements of the problem.

1. *Population Characteristics and Trends.* All the evidence of recent years points to the fact that our population is becoming increasingly urban. The 1930 census of California showed over 4 million, or 73 per cent of the total population as living within the limits of municipalities. In 1890 less than half the population was so classified.

This concentration of people in urban centers is a significant feature of the contemporary scene. It profoundly affects the national economy and introduces many new problems of local and state development, some of which have already been mentioned. An urban population, growing in numbers and receiving as the gift of science and engineering larger and larger increments of free time, presents a special problem in recreation planning.

The improved economic status of the city-dweller, fortunately, permits him to leave his immediate environment. Few citizens today lack means of transportation. The extraordinary mobility of the population of a city like Los Angeles or San Francisco is one of the phenomena of modern times.

It is evident from information and data at hand that the people for whom the State must now plan a recreation system may be characterized:

- (a) predominantly urban, living in concentrated masses in multiple dwellings,
- (b) possessing means and facilities for extensive movement,
- (c) having generous amount of free time,
- (d) being employed largely in repetitive and mechanical tasks,
- (e) understanding the value of outdoor pursuits in the maintenance of good health,
- (f) trained to participate in games, sports and similar activities,
- (g) accustomed to activities in which both sexes participate on an equal footing.

These are not the characteristics of the population two generations ago. They represent new factors in the broad problem of providing adequate leisure time facilities.

The study of social factors as a prelude to the development of a comprehensive recreation plan should be organized along scientific lines. Reports, maps and charts should be prepared. The educational value of such presentations must not be minimized. The people and their elected officials are familiar with the operations of the modern business world

and appreciate the need of highways, water supplies, sewers and the like, but they do not yet understand the significance of recreation or the importance of these new mass demands.

2. *Inventory and Appraisal of Existing Facilities.* It is hardly necessary to indicate the importance of securing full information regarding existing recreation facilities. The preparation of such a survey and report is one of the major items of the state planning program.

Among the many questions that such a study would find answers for are these:

1. What cities have provided most adequately for all public recreation acquirements?
2. What cities show the lowest percentage of space and the poorest facilities for this use?
3. What local provisions are being made for the demands of an increasing population?
4. What facilities have been created for the accommodation of children and how efficiently do they serve?
5. What standards have been established for the development and maintenance of parks?
6. What is the balance between commercial recreation and non-commercial?
7. What uses are made of county and regional parks and recreation areas?
8. Are county parks located properly and designed to render efficient recreation services?
9. What are capacities of existing areas and present loads?
10. What proportion of the present traffic column on highways represents recreation travel?
11. What highways in the State are best designed to meet the expectations of those who take motor trips for pleasure?
12. What percentage of current gasoline tax revenues is derived exclusively from pleasure and recreation travel on highways?
13. To what extent are rail, steamer, bus and electric lines used for recreation?
14. What businesses exist primarily upon recreation interests and what are their economic returns?
15. To what extent are land values affected by parks and similar areas?
16. Where do the visitors to National Parks come from?
17. Wherein do National Parks fail to meet current recreational demands?
18. What facilities and sources are now offered to the recreation-seeking by National Forests?
19. What numbers can the Forests ultimately accommodate in different fields of activity without injury to their fundamental values?

3. *Land Classification.* A third phase of the process of building up a more satisfactory equipment of parks and recreation areas involves the classification of lands and the preparation of a comprehensive plan of land utilization. In such a study it will be desirable to consider areas in three broad types:

- a. lands of superior value for recreation use because of natural conditions, such as scenic quality, vegetation, wildlife, historic or archeological importance, etc.

- b. lands located properly to serve essential recreation needs, without particular regard for their present character.
- c. lands of minimum value and utility for private uses but having some advantages and possibilities of use for public recreation if managed or developed properly.

Final recommendations of recreation areas may well be made from a check list of desirable elements in such a system. Among the types of areas indicated as required by present social needs are the following:

Primitive Areas	Shooting Ranges	Historic Monuments
Forests	Highway Rest Spots	Scientific Reservations
Arboretums	Observation Points	Athletic Centers
Botanic Gardens	Recreational Highways	Playgrounds
Wildlife Sanctuaries	Scenic Drives	Automobile Parking Areas
Scenic Reserves	Picnic Areas	Service Yards
Lakes and Waterways	Trails	Nurseries
Camps	Beaches	

Into the creation of a system of recreation areas including all the major types listed, there will go a varied assortment of lands. Some will have outstanding natural qualities and values; others will be non-descript, low-value areas having possibilities for recreation use only if reclaimed. Among the types of land which may be found useful in forming the system of recreation areas are those characterized by:

Superlative natural beauty	Significant animal life
mountains	deer and elk ranges
canyons	fish
hills and valleys	water fowl
waterfalls and springs	breeding grounds
rivers and streams	Scientific value
seacoast	geological displays
lakes	archeological remains
deserts	botanical specimens
Impressive land forms	Conservation value
picturesque rocks	reservoirs
glaciers	watersheds
sand dunes	channels
eroded hills	General utility for recreation
geysers and hot springs	surface
bays and promontories	soil
Exceptional vegetation	location
forests or groves	size
natural brush or cover	shape
floral displays	accessibility
water plants	
	Low utility for private purposes
	worn-out or intractable soils
	excessive erosion
	nuisance character
	steep slopes
	water deficiency

The composite pattern of land uses of the State will show the recreation units as occupying only a fraction of the total area. What this percentage should be cannot be determined by any standardized formula. The measured needs of the population should establish the minimum space requirements as shown in the comprehensive plan. The ability to finance acquisitions and provide subsequent maintenance will determine the eventual scale of the recreation system.

In many States there are public lands in great quantities available for recreation use. Classification and selection are called for in such areas, followed by proper Congressional and Presidential action.

Tax-delinquent lands are to be regarded as potentially available. In other cases, reservations, reservoir sites, forests and similar lands acquired for purposes other than recreation may, under certain limitations, be used for such purposes.

The records of park development in this country show that with very few exceptions park purchases have been highly advantageous, but the subsequent management of these areas has been made difficult by their inability to carry the recreation load thrown upon them. For many of the things which ordinary citizens want to do when they get away from home on a recreation trip, lands having less attractiveness as parks could be made to serve.

4. *Land Acquisition and Development Program.* There is no State, county or city which has in its possession all the land that logically may be classified as more suitable for public recreation than for private use. The preparation of plans showing the ultimate development of these desirable areas through use of ECW and other relief forces may inspire owners in some cases to transfer them to the public. When government shows by plans what the people need and can use to advantage, the impulse to give is often stimulated and recreation assets come to the community that would not appear otherwise.

CONCLUSION

A complete state-wide recreation system, with elements fitted together as in a well-designed machine, will touch the lives of all within reach and serve practically every outdoor leisure-time interest. Children will be provided with safe, convenient play areas. Youth will have numerous outlets for its energies. Adults can have rest, refreshing contacts with nature, strength-building activity under wholesome conditions, beauty, inspiration and many other beneficial returns. Lands selected, improved and used according to a systematic plan pay dividends. The aim of the State Planning Board is to provide the State eventually with such a system.

THE PLACE OF NATIONAL PARKS IN THE STATE PLAN

COL. C. G. THOMSON,* Superintendent, Yosemite National Park, Calif.

AT FIRST thought the topic assigned to me—"The Place of National Parks in the State Plan"—seemed comparatively simple, a task to be discharged pleasantly in a casual discussion. But further thought brought a sharp realization of the two systems' kinship: that each supplements the other and that each will face similar problems.

The national parks are widely diversified in their character, in types of appeal, in accessibility, in climatic conditions, and certainly in their adaptability to intensive use by people. The state parks present fully as variegated a picture; for example, there are no two national units which are more widely divergent than, say, the great recreational layout administered by New York State in the Adirondacks at one pole, and the almost flawless gem, Point Lobos, the safeguarding of which has attracted a wealth of the most competent and reverent minds on the coast. The great forest reserves present a similar spread of scenic and recreational opportunity.

The various States have undertaken their state park programs in different moods: the groups heading the programs have received various degrees of public and legislative support: there naturally is a wide differential in the quality and character of areas. Some States have moved vigorously to secure, first, the superlative scenic areas; have sought to acquire and conserve, at the very outset, those areas of great scenic, biotic, historical interest, and are taking the long-term view that the purely recreational outlets will be established in due time.

Many observers believe that within a decade or so the purely recreational aspects will control, not only in the state parks but also within the national areas; and that both will be supplemented by intensive recreational development by counties and municipalities in readily accessible areas. Reports of the National Resources Committee are interesting reading in this connection, as are the preliminary findings of current submarginal land studies. Recreation apparently is to become a major government preoccupation. On the other hand, there is an influential group striving to dedicate the choicest areas to pure esthetics—to create something utterly distinctive.

The relative places of the national, state, county, and municipal parks in this probable recreational boom cannot be predicted. It would be natural and almost pardonable for a National Park Service man to contend that the national parks will be the great lode-stars and that the other areas will be mere sideshows. But as often as not, probably, it will work the other way—millions of people will become acquainted with

*The National Park Service suffered a serious loss when Col. Thomson died suddenly on March 24, 1937. We present here an excellent paper which he read at the Far West Regional State Park Conference, San Francisco, September 1, 2, 3, 1936.

parks, as institutions, through minor adventures into near-by areas; and these preliminary excursions will encourage wider wanderings. Already there exist state parks larger in area and infinitely greater in their purely recreational appeal than some of the national units. There is no measuring rod to gauge or to inhibit the size or the scope of the state units.

Inevitably, for a long time the pioneer policies of national parks will influence many state areas. Practically every state unit already knows the landscape man, whose influence was pioneered by the National Park Service. The National Park Service, too, introduced the naturalist, whose work is not merely interpretive and educational, but who contributes immeasurably to the protection of the parks by inculcating a respect and something akin to affection for all natural features, eliminating an untold amount of vandalism. The wildlife technician has earned his place. The historical expert works not only along his obvious lines but also, like the naturalist, builds up a veneration that in the long pull proves a stronger protective influence than a corps of guards.

In all the park areas we generally are free from the predacious elements. The trapper and the hunter are gone. The principal menace to the integrity of certain parks now appears to be merely *people*. That is, hordes of people.

Looking into the very near future, both the national and the state institutions face a grave problem. How are these areas to be protected against the impact of the enormous throngs of people? What are we going to do if travel continues to increase? And we know that it is going to increase. Take Yosemite for example. About 30 years ago its then superintendent wrote that the Valley was being spoiled—that over 900 people had come in that year. This year travel will exceed 440,000; there is an increase of 14.4 per cent to date. In July the public campgrounds, in Yosemite Valley alone, bore a peak load of 12,515. The forest in no campground can long sustain such intense hammering. And the mere presence in one day of 20,000 people, 98 per cent in their own automobiles and insistent upon using them continuously, is destructive of that atmosphere which Yosemite and the Sequoia groves not only require, but deserve.

None of us associated in the study of Yosemite can give any answer. And do not mistake, the park operators are as appalled by the threats of such big loads as are the uniformed men. To repeat, we do not know the answer. There is little reaction to publicity aimed to spread travel through a wider period; the answer is that people take vacations while school is out.

Of course, there is hope of lessened pressure upon critical areas through the development of the state parks. A wider use of the forest reserves will ease the peak load burden, particularly if they appeal to Californians who camp for long periods to escape the summer heat. Last year camping in Yosemite Valley was limited to 30 days; and beginning next year this will apply not only to the Valley but to all of Yosemite.

ite, and, in fact, to all of the national parks. It has been suggested that the Park Service abandon its traditional policy of free camping; that we well could profit by following the lead of those States which have initiated fees. Such a change would involve Congressional legislation. Some propose a gradual reduction in the camping limit to meet practically any condition imposed by increased travel. There is a smaller group which believes the answer rests in the development of sufficient camping areas to meet demands—even if it means the dedication of the entire floor of the Valley to the care of people. At the other extreme there is a smaller group who recommend the elimination from Yosemite of every type of recreation, the reduction of the Valley to a monastic simplicity which would drive away all but the most esthetic.

What is occurring in Yosemite will occur, in relative degree, in practically every other accessible national and state unit having recreational quality. Not only does every indication point to increased travel, but there is a growing demand for additional service. At Yosemite there is a persistent clamor for shower-baths, for free firewood, and a wide range of similar conveniences. The house trailers, which have been with us at the rate of up to 100 or more a day, impose new problems and new demands by owners.

All of which preamble leads to the point which is my reason for being here. I submit to the conference that we owe it to the public, to the taxpayers who foot the bills, and to the integrity of the parks, to present something like a common front in meeting demands that are unreasonable, that are destructive to the areas physically or in atmosphere. We should end all competition in such super-service. I often recall Horace Albright taking me to task because, as superintendent then at Crater Lake, I was doing altogether too much in the camp ground. He told me that I was establishing precedents that I would regret as travel increased, and that already we were impacting upon Yellowstone with its great throngs of people who came there expecting the free hot shower-baths available at Crater. We then were taking care of about 20 camps per night—50 was an absolute peak. Often this warning given eleven years ago comes to mind in facing the problems of Yosemite.

People generally will not distinguish much between the state and the federal institutions; they will expect similar, though not identical, treatment in all. They are all public areas, paid for by the public, either by direct fees or by appropriation. They will expect, and will be justified in their expectation of rather similar service at an approximately similar cost. There will be differentials due to the availability here and there of special resources, but in the main the approach should be reasonably similar in comparable areas. In the national parks we always have, and doubtless always shall, shy away from standardization, and standardization is not being proposed here, but I submit that there is a common ground that can be reached. It is our experience that the type of person

attracted to typical park areas is not averse to paying his way, and gladly conforms to regulation for the common good.

Specifically, facing increases in use beyond any estimates, wouldn't it be wisdom, and in the public interest now, to consider something like a common policy and practice in the various forests, parks, and monuments, state and national? Can there be worked out, jointly, a common conception of problems certain to impact upon practically all these areas?

METROPOLITAN INFLUENCE ON STATE PARKS*

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DURING the past four years the faster tempo which has characterized public park endeavor, as a whole, has attracted the attention of numbers of officials in charge of all branches of public affairs. Particularly noticeable is the fatherly interest displayed by all branches of our educational system. It is trusted that the newly achieved importance of parks and recreation in the lives of our people, in the future of the Nation, may be met by a combined determination to submerge group consciousness in favor of public advantage. However, there can be little gained by anything akin to abdication by park officials in favor of older and more firmly established public works and educational authorities. Future progress in parks depends upon reflection and utilization of experience and these elements can be supplied best by the park authorities themselves.

In city, metropolitan and state parks, first the local need was recognized and met and then with the satisfaction of sponsor and patron alike was developed the demand which foretold the expansion of the state system. All of these three types have enjoyed a similar history, in that expansion has been the result of demand; and the more selective processes by means of which initiative projects were established, have not been adhered to.

Actually, national parks are areas controlled by the National Park Service. Argumentative enthusiasts sometimes reach print in endeavoring to prove that some national parks are merely comparative in value. This type of difference of opinion will, it is hoped, ever be with us. We may find assurance of a widening interest in parks in such variances.

State parks rarely, if ever, make claims to quality of the highest order for all of the areas in state-wide control. The necessity to establish parks in a state of nature moderately close to centers of population frustrates strict adherence to standards of the highest sort. Obviously, the accessibility of areas of average quality is to be given priority over the more remote possibilities of greater esthetic value. In state park

*A paper read at the Midwest Regional State Park meeting, St. Louis, Mo., November 13, 14, 15, 1936.

systems, as distinguished from the system of national parks, the convenience of large masses of people properly is given much consideration.

No similar positive distinction exists between state and metropolitan parks. Perhaps they may differ in the weighing of the standards of inherent park value and location.

Most metropolitan areas are locally financed, as distinguished from the broader spread of the financing of state parks wherever located. State areas selected on the merit basis alone are quite properly the responsibility of the State, and equally sound is the principle that areas beyond the corporate limits of cities, which are selected largely for the benefit of a near-by thickly populated area, should be the responsibility of the metropolitan community, not the State. It goes without saying that with local financial responsibility, local administration and control are presumed.

This brings us to the subject matter of this paper. Future development and operation of metropolitan parks may exert a healthy influence on their big brothers, the state parks. There are many notable examples of the satisfactory, even the superior character of parks which are locally operated. However, where they exist, metropolitan parks, particularly those which enjoy heavy patronage, have a number of advantages over the state-operated parks in the same locality which may be equally accessible and attractive. This is solely the result of the more intimate and continuous contact with the problem as administered by the local organization. It would be careless to say that nothing can effectively take the place of the metropolitan park administration of the strictly geographically located natural parks, because there is the notably successful New York State Council of Parks.

Granting that metropolitan or regional park systems have their origin in demands and needs resulting from the massing of population in cities, and that their very existence proves the local willingness to assume the responsibility of maintenance, can there be any question of their desirability in the whole scheme of things? Does not their existence and the establishment of more metropolitan systems influence the future maintenance policy of all state park systems? Are there not on all sides, in every part of the country, too many evidences of the unwillingness of localities, of whole States, to bear the burdens which are local or state, rather than state or national respectively? This indisposition has, unfortunately, expanded during recent years, during which time park systems of all the lesser subdivisions have been beneficiaries of advantages at the hands of the Federal Government. In the face of this advance, it must be admitted that the opposing influence of metropolitan parks has failed. However, this is temporary, for ultimately the justice and wisdom of local assumption of responsibility for public works of local benefit will prevail.

Recently, at the Cincinnati meeting of the American Institute of

Park Executives, Conrad L. Wirth, Assistant Director of the National Park Service, suggested that for a number of reasons the national and state parks could expect to become the beneficiaries of the efforts of metropolitan parks in the field of the education of the using public. Acre for acre, dollar for dollar, metropolitan parks serve more people than do the state and national parks. Many of them are close enough to centers of population, in addition to being attractive enough, to compare with many state parks, to draw vast numbers of people throughout the week and throughout the year. This steady patronage involving much repetition on the part of hundreds of thousands of people is alone proof of a broader opportunity to educate people in the use of areas maintained in a state of nature than is present elsewhere. It also follows that for the preservation of these intensively used metropolitan parks the local authorities are forced to nurture the type of use that will prevent the destruction of resources. The less intensively used state and national areas cannot fail to reap the benefit of an awakened public consciousness, of their combined power to destroy and their joint responsibility to conserve. This is the more certain because the urge to visit park areas more remote in State and Nation surely originates in part and is stimulated in all who receive their initiation to the out-of-doors in the local areas.

To these intangible, but nevertheless important influences, may be added a third, perhaps more illusive than the others. Again, its origin is in the fact of the more intensive use of metropolitan parks. The much-discussed and still wide-open matter of design of state park areas has for its testing ground the metropolitan parks. Inevitably, authorities in charge of state and national parks find that the most difficult problem is that of maintaining attractiveness in combating intensive use. The acceptance of the fundamental soundness of ideas calling for the minimum of automobile roads, of the use of relatively small and properly located service areas, of doing only that which is necessary to provide for human use and need are each and all principles of control and design to a large degree, and all of them are best demonstrated, often by flagrant mistakes, in metropolitan parks.

The fact is that any given park area has a given capacity for people, before a stone is turned. Upon completion of development, too, each area has a limited ability to provide for human use. Yet the knowledge of such facts is universally neglected and forgotten by park authorities who yearn for the patronage of more and more people. This, in face of the fact of the certain acceleration of destruction which will follow, metropolitan parks are sure to provide emphatic examples of this overloading. Here, too, relative greater accessibility is certain to develop faster destruction. Unless human nature changes more quickly than ever before, such examples of wearing out will be allowed to develop in the future. The lesson must be learned through experience.

State Park Organization and Management

THE PROTECTION, CONSERVATION AND DEVELOPMENT OF STATE PARKS*

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ALL will recall that the first item in the recipe for "Rabbit Stew" is first to catch the hare.

Similarly, it is necessary to locate a state park system before advising how it should be protected, conserved and developed. Details must be known of climate and topography. Density of present and future intra-state and inter-state tourist travel must be carefully estimated and studied.

The problems are complex. On the one hand there are areas that should be surrounded by scenic easements in order to provide an adequate setting for an inspiring example of Nature's handiwork destined to be preserved untouched by man. Such easements may be necessary to prevent unsightly commercial developments in the vicinity of the park. On the other hand certain areas, even some of great scenic inspirational value, can best justify their acquisition for park use by serving as breathing spaces and playgrounds for congested centers of population. The problems must be approached in a spirit of adjustment and compromise between the two extremes that are to be met if just solutions are to be secured.

Perhaps all can agree that recreation in some one or more of its many forms is the principal objective to be attained in developing parks for public use, and that all development of a park for public use should aim to provide that kind of recreation re-creation (if use of the term is allowable) for which that park is best adapted. Such recreational values may vary from the awe and inspiration afforded to a few individuals by the view from some lofty, almost inaccessible mountain, to the sense of relief from prison afforded city dwellers by a breath of fresh air on a narrow beach even if the latter is occupied by ten human beings to the front foot.

One step in the procedure of planning for the protection, conservation and development of state park areas may well be to classify the units in any given state park system along three broad general lines.

1. Parks having such marked scenic or historic inspirational values that all other uses should be subordinated thereto.

2. Parks in which the needs for intensive public use are so immediately pressing that they cannot justly be ignored.

3. Parks intermediate between classes (1) and (2) in which, due to various reasons, social and otherwise, inspirational, historic and scenic values have to be placed on an approximate equality with values involving intensive public use.

*A paper read at Far West Regional Conference on State Parks, September 1, 2, 3, 1936.

In the above classification for want of a better term "intensive public use value" may be defined as including areas which of necessity have to be given over to more or less dense human occupancy, such as sea or lake beaches readily accessible from large centers of population or portions of inland parks set aside as camp and picnic grounds.

A classification such as that suggested is not always easy to make. Some properties have natural features of such outstanding merit that they can be immediately classed as museum pieces to be ever preserved in a state of nature almost untouched by the hand of man. Others due to local surroundings and nearness to large centers of population must of necessity be developed for intensive use by the public. A majority of the units of most state park systems will generally fall in the third class outlined above. In this class public use and scenic inspirational values will have to be carefully balanced and adjusted.

In developing parks of great scenic or historical interest for public use, protection and conservation of the scenic and historic values should be given major consideration and public use should be subordinate thereto.

From the beginning it is well to recognize that in planning for the protection and development of the units of a state park system some consideration will have to be given in each case to the problem of public use. Consideration of the kinds of public use legitimate for each park is therefore necessary.

An extreme ideal for park development may be considered to be complete protection and conservation of the natural condition found in the area. It is easy as sometimes has been done to provide by statute that a given park is to be forever preserved in a state of nature. It is not so easy to secure the desired result if human beings are allowed to enter the area. The mere fact that a park has been so set aside attracts the attention of the public as sugar attracts flies. As years go on more and more people will wish to visit the park if for no other reason than that it is the thing to do. Proposals will be made to sink shafts and drive adit tunnels in cliffs for elevators or build aërial tramways to the tops of peaks not easily accessible.

Demands will be made for public roads through scenic and wilderness areas that should be preserved in a natural state. Innumerable suggestions will be made for types of use designed only for amusement. Such demands are often made for the so-called improvement of parks of pre-eminent scenic or historic value that are admirably adapted to hiking, horseback riding, or the simple enjoyment of outdoor life surrounded by nature at its best. However, nature at its best can only be seen once and that is when the observer is the fortunate individual who first visits the spot. The above considerations suggest dividing a park into areas best suited to the kinds of public use that can be legitimately permitted in each part.

A first axiom in planning for the protection, conservation and devel-

opment of a park might well be to restrict and segregate development in order to prevent unnecessarily wide-spread public use. The term unnecessary public use leads to a second axiom, namely—to exclude all forms of development for public use that can be adequately and economically provided by private interests on privately owned areas affording easy access to the park. Housekeeping cabins are frequently economically possible as private investments. On the other hand, providing adequate space for camping is in most instances not economically possible. Parks, picnic areas and beaches located near large centers of population and without distinctive scenic values are usually of major recreational value to the local community. The development for public use of areas so located might well be turned over by the State to the county or city whose population is most directly interested in such use. The State will have contributed its share by assisting in the acquisition of such properties. The local community should assume responsibility for their proper development and maintenance. Amusement features unsuitable for the development of scenic parks of state-wide interest may be almost necessities in parks of only local value.

Adequate protection and conservation of a specific park area will require careful consideration of many problems. The advice of experts in the fields of park administration, fire protection, wildlife conservation, geology, history, outdoor recreation will be needed if the right solutions are to be obtained. The most difficult problem to solve will be the determination of the kinds of public use for which the area is best adapted and the locations where each kind of public use may legitimately be permitted. The final decisions should be formed into a "Master Plan" for the development of each specific park in a state park system. Modifications of such a plan may or may not become advisable as economic conditions change from time to time. One thing, however, is sure: no deviations from or changes in the original "Master Plan" should be permitted unless the same have been approved by experts with qualifications equal to those of the board by which the "Master Plan" was first prepared.

Some of the problems requiring consideration in the development of all parks are as follows: all parks should have their boundaries clearly marked—fences where necessary, and posts easily intervisible elsewhere. Parks should be refuges for all forms of wildlife. Hunting, especially, should be expressly forbidden. Sportsmen on the other hand have a right to expect that the limits of such refuges be adequately marked. Again all parks should be carefully studied to determine the extent and kind of fire protection to be provided. Fire-breaks and fire truck trails wherever practicable should be merged with scenic roads and foot trails. The problems of properly locating scenic roads and trails and specifying admissible types of fire protection are intimately connected with conservation of wildlife and opening up for enjoyment by the public of scenic, geologic, floral, and historic areas. In high mountain districts the proper location

of scenic lookouts is important. If the area is subject to sudden storms, provision of shelters may be advisable.

The proper relation between a park and a public highway is frequently a problem requiring careful study. In general a public highway leading to or by a park is almost a necessity of any portion if the area is to be intensively used by the public. On the other hand a public highway running through a park is almost always a detriment. Problems of proper administration are more complex. Public rights in the use of public highways frequently conflict with desirable limitations in the public use of park areas.

Such highways should be avoided wherever practicable. If such highways already exist careful studies should be made to determine the possibilities of re-location so as to pass by or around and not through the park.

The most difficult problem of all is to determine what areas in a specific park may legitimately be set aside for intensive use by the public as community centers for picnic and campgrounds, cabin hotels, restaurants and stores. The first requirement to be met in selecting such areas is that they should possess, at least in minor degree, some of the scenic and other recreational values of the park as a whole. In a virgin forest with many groves of outstanding beauty and grandeur, segregation of public use for picnic parties and camping to one or more of the groves is often a necessity in order to conserve the scenic values of the others. Frequently, areas of second growth timber or the margins of forests adjacent to lakes, streams or prairies if properly developed may be made more attractive for picnic and campground use than heavily wooded tracts. In some parks questions of level ground, sources of water supply and provision of proper sanitation will be determining factors in deciding upon areas available for intensive public use. Nearness to beaches suitable for bathing on ocean, lake or stream often but not necessarily always determines such locations. A community center location should not be considered perfectly satisfactory unless it is or can be screened from visibility from public highways and main park roads.

For administrative reasons it is desirable that there be only one main entrance to a park open to use by the visiting public. This should be provided for wherever practicable. Other considerations being equal, this main entrance should be located so that the distance from the public highway outside the park to the community center area is a minimum. As an illustration assume a park approximately two and one-half miles long and one mile wide with a main highway parallel to its greatest length near its west boundary. The eastern boundary is for the most part composed of bold rock cliffs forming the shoreline of a lake twenty-five miles long and ten miles wide, at an elevation of 6,200 ft. This lake is surrounded on all sides by mountains rising to elevations of more than 9,000 ft. With the exception of the state park, most of the lake frontage is in private ownership and the public is excluded. The lake is encircled by state

highways in most cases located some distance back from the shoreline.

The regional population during the summer months is relatively large. The demand for public access to the lake shores is great. At the north end of the state park property is a beach one-quarter mile long, suitable for bathing. Back of this beach is a second growth of timber admirably suited to camp and picnic-ground development. The major portion of the park property to the south is open virgin forest noted for its noble stand of timber and scenic views of lake and surrounding mountains. In this instance the desirability of locating the main entrance to the park near the north boundary one-half mile from the community center is self-evident. Shortly after passing the custodian's lodge at the entrance gates, a scenic park road curving to the south can be located so as to open up the scenic areas of the park for the enjoyment of those who are seeking that kind of recreation. A branch road to the northeast about one-half mile in length will lead to the community center and bathing beach. Any other location of a single main entrance from the highway to the park except one near the north boundary would be mistaken since it would subject a long stretch of scenic park road to intensive public use by those whose main interest in the park is the recreational values to be obtained from life in the open or the enjoyment of picnicking, bathing, and boating. Such use of scenic roads would seriously interfere with the pleasure of those who visit the park in order to enjoy to the full its outstanding scenic values. Mistakes of this kind arise from considering the problems of development from only one point of view.

If certain areas of a park are to be set aside for community center use, great care must be exercised to reduce the objectionable features of such use to a minimum, but in choosing and developing such areas, thought must be given to making them attractive and comfortable to those who are to use them. In this connection it is interesting to note that those who most enjoy life in the open are often those who most appreciate park areas that have been reserved for purely esthetic enjoyment.

Overnight camping spots should be carefully selected to secure the comfort of hiking parties and at the same time limit the extent and number of areas to be so used. In some locations some crude form of shelter may be advisable.

In making provision for community centers planning boards should be generous and set aside areas large enough so that individual camps and picnic tables are not too crowded. If practicable they should be located not less than 75 feet apart and screened from each other by undergrowth. Each camp unit should have an independent water-supply. Separate sanitary facilities, cold showers and garbage cans should be provided for groups of not more than ten to fifteen camp units. In some locations these groups can be arranged in a circle; in others the topography may require that they be arranged in a line. The individual camps should be kept well back from the main community-center service roads.

The demands of the public for the equipment of camping units will usually be met if each unit is provided with space for parking a car (sometimes with trailer) off the service road. Tent space, a stove, a table and a cupboard for food are advisable.

It is desirable from an esthetic point of view that the designs for these articles of camp equipment be attractive, but the tired mother of a family of small children seeking relief from the congestion of large manufacturing centers or the heat of hot interior agricultural valleys, will have small appreciation of esthetic values if she has to break her back three times a day cooking over a fire on the ground or a low-set stove.

Nor will a spirit of devotion be engendered when she is compelled to sink to her knees each time she goes to her cupboard. Often living in the open is the only vacation such a mother economically can afford.

Why not make comfort in use a prime consideration in such development? Such members of the public are not underprivileged if their modes and demands are thoughtfully met and they are allowed to retain their self respect by paying the cost of maintenance and operation of such areas. Visitors to a park thus developed may find study of its social values fully as inspiring as those of an esthetic nature.

To summarize briefly, it may be stated that the ideal state park is an area of outstanding natural scenic beauty which you are the fortunate individual to visit first.

At the other extreme is the narrow state park beach to which on weekends and holidays human beings swarm for relief from the heat and congestion of densely populated cities. Most state park areas fall in between these two extremes. The demand for public use will vary greatly with the location, natural features and size of each specific area.

Conservative protection can best be secured by carefully limiting all types of development for human use to the amounts necessary to meet the immediate public demands. Changing economic conditions that may change the public demand for use can be met as they arise.

The watchword should be "Go slowly—avoid over-development."

Concentrate in administration on educating the visiting public more and more to appreciate all the re-creational values that are available for those who earnestly seek.

Living close to nature under favorable conditions is sure to bring to all—old and young, rich and poor—some message of cheer and spiritual uplift.

"To him who in the love of nature
Holds communion with her visible forms
She speaks a various language."

Strive so to develop a park that each and every visitor can hear and understand the message that nature speaks to him.

CONSERVATION OF NATIVE FLORA IN STATE PARKS*

PEARL CHASE, Santa Barbara, Calif.

1. Either you are wondering why a non-professional should speak to you on this subject or else you wonder why it is necessary to talk about saving wildflowers when time is precious and other problems of park administrators are so pressing. The answers are probably:

(a) That it is only fair play to give a representative of your great consumer or visitor group a chance to be heard and

(b) That the word "flora" not "flowers" in the title affords us an opportunity to show that the preservation of native flora is intimately tied in with many of the major problems of park policy and management.

Under flora we may include everything from the plant-life in streams and lakes to alpine mosses and flowers, from desert grasses to gigantic forest trees.

2. Each of the six western States represented in this regional conference possesses rare and distinctive areas of great natural beauty and interest. Their state parks and forests have an infinite variety of scenery and plant-life. The enormous number of plant species represented in this area is due to the fact that the varying altitudes, and climatic, soil and moisture conditions create situations favorable to all the plant zones. Few realize that many of the species found in and west of the Rockies are unknown farther East, and that California in particular possesses a very large number of these indigenous trees, shrubs and smaller plants. Three of these States have a long coast-line, as well as valleys, plains and mountains. Parks have wisely been selected in all of these representative areas. Many of them have been carefully chosen, in relation to population centers and major lines of travel as well as to the present distribution of recreation and conservation areas in National Parks and National and State Forests. Many of them have been secured for the primary purpose of preserving, in all their natural beauty, great forest stands, or areas rich in plant and animal life, or of unusual scenic value.

3. Are you sure that in your State you are setting aside land that will include the best possible representation of all the zones of plant and animal life found within its boundaries? Have you, in your State, drawn up a declaration of park conservation policies which will control in a flexible but effective manner, first, the activities of park employees and, second, the behavior of your guests, Mr. and Mrs. John Public, and their innumerable offspring, afoot, ahorseback or in houses on wheels? We believe that few States, due to the recent and rapid development of their park systems, have adopted adequate conservation policies. We believe that it is highly desirable and important that they do so.

*Condensed from a paper read at the Far West Regional State Park Conference, San Francisco, September 1, 2, 3, 1936.

The basis of the policy could well be *preservation for use without abuse* with a determination *not to destroy native flora in advance of necessity* and to provide for reforestation, encouragement and enhancement of the native growth wherever possible when it has deteriorated or been destroyed in some manner. Small nurseries for the propagation of native trees and shrubs, and even wildflower seed of certain kinds, are desirable when park planting schemes have been drawn up. Many secrets as to the manner of raising native plants from seed are still to be learned. (See National Forest Service Experiment Stations.)

4. Rules are necessary for both groups, the ins and the outs—park employees and visitors. All of you subscribe to the old Chinese proverb “Politeness before Force,” and the regulations controlling the development and maintenance you can well formulate for yourselves. There will be a considerable variation in different classes of parks. One park official wrote: “We have no statement of policy on the conservation of our native flora in our state parks, except to prohibit planting of exotic materials in them. No doubt all state park authorities recognize certain principles, but to our knowledge no governing principles have been written out.” Perhaps a few examples of damage or destruction caused by park employees as part of a so-called improvement program or because of inadequate or incorrect standards of maintenance may illustrate what controls are advisable.

(a) A crew of relief workers cleaned up a beach park. The sand verbena, tufted grasses and low shrubs were uprooted, piled and burned—the sand now blows where it isn’t wanted, the glare on the beach is heightened extraordinarily. It will be an expensive and slow process to replant, impossible in certain spots of frequent use.

(b) A natural hillside covered with trees, native shrubs, wild flowers and grasses, the background of an important park structure, was to be carefully enhanced by the planting of certain species of native plants, which had formerly been abundant there. Before the work started, members of a resident CCC Soil Conservation Camp made half a dozen short-cut paths down the hill, providing the most alarming channels for rain-water erosion. It took a barrier to stop the practice. In another location, a Soil Conservation crew started gullying along a hillside overgrown with native material by driving their tractors up and down wherever it suited their fancy. This was stopped; it should not have been started. Many men wouldn’t think of driving back and forth across a wheat field, but would apparently think it quite proper to travel over natural ground-cover which it would be infinitely more difficult to replace.

(c) In a park undergoing intensive study, where everyone knew the natural values were to be maintained at all costs, park employees frequently drove their cars into or across meadows—a natural invitation to others to follow, so they created scars it will take time and effort to eradicate. Just because it was a state-owned area, the State Highway Department found it economical and convenient to secure road-construction material there; the result: another unnecessary loss.

(d) In a mountain park the “cleaning” of stream beds and banks absolutely destroyed the shade cover, so important to fish, and reduced the quantity of fish food to a minimum; the result: no more fish there.

(e) The removal of all dead standing timber and low plant ground-cover and litter in certain park woods was reported to have reduced immediately the number of birds and small mammals resident in that vicinity. Unless natural ground-cover and so-called small litter is allowed to accumulate, the forest trees and shrubs will secure much less moisture and food than they need and accordingly will suffer slow deterioration. This does not mean that the sides of roads and trails should not be cleared of inflammable material of course. The location of camp conveniences in such a restricted area that it is impossible to give a rest to the forest floor by rotating parking at camp-sites, means certain loss of the very values which made the camp location desirable. This has happened quite often.

(f) The building of roads across meadows without providing for the maintenance, as far as possible, of existing drainage conditions has, within a season, because of the change in the water-table, caused the loss of innumerable beautiful wild flowers and flowering shrubs. The construction of hillside trails and roads has frequently led to an astonishing amount of erosion, the effects of which may be discovered far below the place of construction. Apparently, until recent times, few mountain roads had properly designed drainage ditches and pipes placed so as to prevent destruction of hillside cover and erosion. The result is usually both ugly and destructive of plant-cover. Many roads and hillsides are in bad condition now for this very reason.

These examples of thoughtless, heedless and harmful destruction of native flora will remain anonymous. No one need think that they are taken only from California, my home State, for I have traveled through all the six Commonwealths represented in this Conference and have recently returned from a trip through twelve Atlantic and Middle Western States where I visited with park and highway officials, and discussed local conditions with them.

Perhaps the point should be emphasized that good housekeeping principles may apply to the semi-urban, artificial and service areas of a park, but that they certainly do not seem appropriate in the natural areas of our scenic parks if we wish to preserve their charm and beauty, and provide the proper soil and moisture conditions for growing things.

This brings us naturally to the point which has been brought out elsewhere that it is very necessary carefully to classify, or reclassify, the parks according to location, size, quality of assets and, particularly, use. The determination of the best long-time use will decide methods of preservation and development. With most of the small parks near centers of population where from necessity there is a high degree of concentration of human use, the conservation program is necessarily limited, though some of these, as well as the larger natural parks, offer splendid opportunities for conservation education. Every possible facility should be provided that will encourage interest in the great outdoors and serve as a stimulus to nature and understanding of our native flora and other natural resources. Provide, whenever possible, a park naturalist, nature trails, trailside museum, make a check-list of native trees, shrubs, and wild flowers, also birds as soon as possible. The schools will take advantage of every opportunity to use your parks for outdoor study. The problems of these close-in parks are nearly related to those of cities and counties where a certain amount of artificial recreation facilities must be provided, together with ample space for daytime picnicking and gatherings.

The scenic or natural park is usually in less accessible country, where camping must be permitted, and conservation problems are of major importance. There are other parks which partake of the characteristics of both the urban and the primitive area.

Both the classification and the setting up of principles for development and maintenance can best be done by widely experienced specialists, in conference with local men, and it is fortunate that at this period of rapid development in the state park program provision has been made for the guidance and assistance in planning by a Division of the National Park Service. We are sure that busy state park executives will appreciate and profit from the results of the study and analysis of their conservation problems. We trust that as rapidly as maintenance funds can be assured the state parks will be developed, and in such a way as to lessen the use of national parks and the demand for sub-standard national parks where the highest conservation principles should be maintained, but where it has been confessed that it is difficult indeed to resist overcrowding, and also demands for artificial recreational features inconsistent with the best park policies.

Now we come to a consideration of the rules which should be adopted for the guidance and control of park visitors. In our western States many are well versed in the etiquette or rules of conduct in public areas. We are fortunate in having so many splendid national parks and national forests where, over a period of years, experience has shown first what the travelers may do to destroy or injure the native flora and other natural values, and, second, how best to control them.

One of the officials in charge of the Cook County Forest Preserve in Illinois, a straggling 35,000-area picnic and recreation area writes:

Because of the four million people in this County, some 10 per cent know no law but that of fear, no order but disorder, no property but their own, nor any qualm at wanton destruction, and because we have another 40 per cent that doesn't give a damn—is concerned only with its own desires and whims—we provide nothing portable or breakable if it can be avoided. We cannot even keep the signs on our nature trails.

We hope that you will agree that in the West the percentage of ruthless destroyers is much less than 50 per cent, but some such do exist. Rules must be enforceable and penalties should be provided for deliberate or serious infractions. Advertise the imposition of penalties as the Forest Service publishes stories of the punishment of fire setters. After reading the synopsis of rules and regulations appearing in the 1936 national park pamphlets, I have compiled or selected those which are for the protection of the woods and forests and other vegetated cover.

Park regulations are designed for the protection of the natural beauties and scenery The parks belong to future generations as well as to the present.

Camps: "Use designated camp grounds Dead or fallen wood may be used. (OR) Use only wood stacked and marked 'firewood.' Do not use ax on any standing trees or strip bark from them."

Fires: "Light carefully in designated places. Extinguish completely before leaving camp even for temporary absence. Or, do not go out of sight of your fire."

Smoking: "No smoking during the fire season while in motion on roads or trails; it is permitted in camps and at stations."

Trees and Flowers: "The destruction, injury or disturbance in any way of the trees, flowers, birds or animals is prohibited. Live growth must not be injured in any way. *Or*, trees, shrubs and flowers—do not touch them until you know the regulation. *Or*—written permits may be secured from the Superintendent (or Naturalist) to pick certain flowers at certain times. *Or*, do not pick flowers or write or carve your name on objects in the park. *Or*, the first law of a national park is preservation. *Or*, disturbance, injury or destruction in any way of natural features including trees, flowers, and other vegetation . . . is strictly prohibited. The penalty for deliberate infraction of National Park rules and regulations is a fine not to exceed \$500, five or six months' imprisonment or both."

Undoubtedly the greatest threat and the most destructive agency is fire. The tremendous loss of forest trees and vegetation cover in certain areas has made an aggressive and tireless campaign necessary, particularly in the States where little or no rain falls in the summer months when tourist travel is greatest. Everyone should be alert to prevent the danger and damage caused by the careless cigarette and match-thrower, the inexperienced camp-fire lighter, as well as firebugs and from the operations of loggers on adjacent land. The trailer, a home on wheels, now makes it possible for families to camp outside of regulated campgrounds and the most careful supervision is required to prevent camping during the fire season where hazards exist.

We are agreed that destruction of native flora usually means the loss of beauty. It may result in erosion and destruction of water-shed protection and decrease in wildlife. Natural restoration is slow and re-planting is a slow and expensive process with increased maintenance costs. Reforestation in high altitudes is particularly difficult and slow.

In Washington and California for several years in the spring, we have observed Conservation Week on a state-wide basis. It is also the practice in a large number of eastern States where its observance centers around the schools. We heartily recommend that state park administrators encourage and participate in this and similar educational activities and provide, if possible, simple and inexpensive printed material which sets forth the values of the natural resources in the state parks and describes how best to enjoy and preserve them. (Conservation Week in California will be March 7-14 in 1938 and 1939, beginning always on California Conservation, Bird and Arbor Day, Luther Burbank's Birthday.) It is agreed that even a slight acquaintance with park flora will vastly increase the pleasure of visitors.

Someone has said that beauty is the greatest motive power in the world. Perhaps the most difficult, but most enjoyable, task of the State Park Service is to help the people to see and understand the beauty about them. Nature has painted marvelous pictures with a lavish palette. You can regard your parks as public galleries where people come to rest, to learn, to enjoy the beauties of nature, its mountains, streams, and lakes, its trees and lovely wildflowers.

THE NEW YORK STATE PARK SYSTEM*

JAMES F. EVANS, Executive Secretary and Chief Engineer, Central New York State Parks Commission, Binghamton, N. Y.

IN the early days, the State owned and controlled a great part of its total area, and in 1784 a special agency was set up to dispose of this state-owned land for settlement. It is a melancholy fact that the disposal of this land went on over a period of a hundred years with no thought of the future until in 1884 the public lands were withdrawn from sale and the State has been buying them back ever since, paying many times the original sale price.

Prior to 1923, there were in New York some 40 parks and places of scenic and historic interest. They were scattered throughout the State under the jurisdiction of all kinds of boards and commissions. It was at this time that a committee of the New York State Association, under the leadership of Robert Moses, decided that the time was ripe when provision should be made for the recreation needs of the State. The reasons back of this movement were the growth of population, the disappearance of shore front, the inadequate park areas, the increase in motor traffic, the conservation needs of the State, and the cost of delay.

This committee published an illustrated report in which was outlined a comprehensive plan for a unified State Park System and recommended financing through a bond issue. The idea was favorably received and had the active support of Governor Smith and the legislative leaders. A bond issue of \$15,000,000 for the extension and improvement of existing areas and the establishment of new parks was passed in 1924. In the meantime, the Legislature made available in 1923 \$1,000,000 and a like amount in 1924. The State Association report had also recommended the establishment of the State Council of Parks and a division of the State under regional commissions, nine in number. These regional commissions were made up of outstanding influential citizens, unpaid, and it is to their enthusiasm and disinterested service that the State owes much of its present State Park System. The Chairman of these commissions, together with the President of the American Scenic and Historic Preservation Society, the Director of the State Museum, and the Conservation Commissioner ex-officio, comprised the State Council of Parks. At the present time the President of the American Scenic Society has been replaced by the Director of Lands and Forests.

This State Council acts as an advisory agency, formulates plans for the development and management of the park areas under a uniform park policy, plans highway and parkway connections, acts as a clearing house for park information and has budgetary control powers over the regional commissions.

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

New York has developed in industry, commerce, and transportation through a relatively narrow belt stretching from New York up the Hudson to Albany and westward through the Mohawk Valley to Buffalo. North and south of this industrial belt lie the natural recreation areas of the State. New York is singularly fortunate in that it has the ocean, the Sound, the Great Lakes, Niagara, the St. Lawrence and the Hudson, many beautiful inland lakes, and the great mountains of the constitutional forest preserve areas, some two and a half million acres in extent.

The status of New York's park system organization has changed but slightly since its inception. Parks are now one of the four Divisions of the Conservation Department, along with Lands and Forests, Fish and Game, and Water Power and Control. The Division of Parks is headed by a Director, immediately responsible to the Conservation Commissioner. The State Council of Parks is composed of the heads of the ten regional commissions plus the Director of the Division of Lands and Forests and the Director of the State Museum, twelve members in all, and meets by law, once each month.

Budgets are submitted annually by the regional commissions to the Council for approval. The revised budget then goes to the Conservation Commissioner, passes from him to the Governor and is submitted by the Governor to the Legislature. By the time the Legislature receives it, you can rest assured that the non-essential items have been eliminated.

The most westerly of the park authorities is the Niagara Frontier Commission which is responsible for the protection of the scenic character of Niagara Falls and adjacent area and for the expansion of recreational facilities bordering on the Niagara River. New parks and parkways are being developed both above and below the Falls. Two of the newer parks in this area are located on Grand Island in the Niagara River which was made accessible in July, 1935, by the opening of two new bridges.

Lying just south of this region is the area controlled by the Allegany Park Commission. This is a vast wilderness park of some 65,000 acres. The same commission controls the Lake Erie Park in Chautauqua County and the Cuba Lake Park near the Village of Cuba.

Southward from Rochester we have the Genesee Region, including some outstanding examples of waterfall and river gorge scenery in Letchworth Park on the upper Genesee River. This commission is developing a new park just west of Rochester at Hamlin Beach, which will serve the northern part of the region and furnish a fine lakeshore beauty spot.

Next to the Genesee Commission lies the Finger Lakes Region, which controls ten parks of varying size. Their outstanding characteristic is the endless variety of waterfalls, ranging from the tumbling brooks to the mighty Taughannock with its 215-foot straight fall of water, the highest single falls east of the Rockies.

Next door to the Finger Lakes, we find the Central New York Region made up of four major parks, highly recreational, two smaller parks, especially scenic, and two historic monuments. The jurisdiction of this commission stretches in a long narrow strip through the heart of the State from the Pennsylvania line on the south, to Lake Ontario on the north.

On the northern boundary of the State stretching down the St. Lawrence, we have the Thousand Island Park Commission, younger than the rest but charged with the development of this beautiful waterway region.

Down the Hudson River on its western bank we find the Palisades Interstate Commission; interstate in that its jurisdiction lies partly in New York and partly in New Jersey, with an interlocking commission appointed by the Governors. This area stretches from Fort Lee in New Jersey northward along the river to Newburgh in New York and is divided into six distinct sections, the largest being Harriman with some 42,000 acres and the most highly developed, Bear Mountain with 1,000.

Across the river in Columbia, Putman, Dutchess and Rensselaer Counties, the Taconic Commission holds forth. They control four major parks which are accessible by motor over extensions of the famous Westchester parkway system.

The Long Island region comprises 14 park areas and some 60 miles of completed parkway, and extends from the city line of New York to Montauk Point. Four of the Long Island state parks are within an easy hour's drive of the congested districts of Queens and Brooklyn, one of them being the celebrated Jones Beach, which with its two miles of ocean beach far surpasses anything of its kind in the world.

THE INDIANA SYSTEM*

MYRON L. REES, Director, Division of State Parks and Lands and Waters,
Indianapolis, Ind.

IT WAS only a few months more than twenty years ago when the tract of land which is now Turkey Run State Park was finally acquired after many disappointments, yet during that interval Indiana has built up a system of 12 parks which this year will attract more than a million visitors. While negotiations were being completed for the acquisition of the land for Turkey Run, the enthusiasm created by the state park movement led to the purchase of a second area, the site of a sanitarium, and this became McCormick's Creek State Park.

The Indiana state park system was established as providing areas where the public might forever have the opportunity to observe trees and plants, birds and wildlife in the setting for which nature designed

*Condensed from a paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

them; where the visitor might exercise the primitive urge to tramp mile after mile through forested areas, along streams and over hills; where he might cook his meal over a campfire and sleep under the stars.

The ten-cent admission fee charged at the Indiana state parks is a standard service charge, based on the theory that while the parks belong to all the people of the State, those who actually use and enjoy them should make some specific contribution to their maintenance and operation. You might be interested in knowing that there are no "passes" for the state parks and that the chauffeured visitor must wait in line behind trucks, school buses and overloaded family cars to pay his dime. There is no distinct on to the attendant on duty.

In the operation of the state parks a careful development program has been maintained. The natural beauty of the landscape has been jealously preserved while we have carried our obligation of providing such facilities as are necessary contributions to the enjoyment of these areas by the people they serve. The program has included the provision of picnic areas, of camping areas, the establishment of roads, the marking of hiking trails and bridle paths, furnishing camp facilities for groups of girls and boys, the maintenance of a nature guide service, operation of swimming pools and bathing beaches, the improvement of fishing, setting aside areas for archery meets and hunting, and the provision of hotel and housekeeping facilities for the visitor who sought more comfort than a tent. We maintain wildlife exhibits, a natural history museum, a re-created pioneer village in which a water-powered grist mill grinds corn and the same motive power operates a saw mill, and recently we have developed special parking areas for the visitor traveling with a trailer home.

It is estimated that in our state parks we have today facilities for more than fifteen thousand picnickers, these facilities including tables and benches, outdoor ovens supplied with free firewood, shelter houses which have fireplaces and ovens, convenient drinking fountains and outlets with water which is tested regularly by the state board of health, and comfort stations with modern, water-borne toilets. Similar facilities are provided in the camping areas and we also provide for the collection of garbage, regarding the disposal of this waste as a contribution to the health of the visitors.

Recently we have constructed five new camping areas in as many state parks. Some of these are more complete than others, having individual parking spurs for a car and trailer, outlets for electricity, and comfort stations which include showers and laundry tubs. We are proceeding slowly in the development of special facilities for the trailer visitor, not through any reluctance to attract these visitors but in an attempt to build wisely for the future of this rapidly changing method of tourist travel.

We regard roads as a necessary part of our park-development pro-

gram, serving the visitor who is unable or disinclined to hike over the trails or ride horseback. However, our parks are not covered with a network of roads, only those which serve a definite area being permitted, such as connecting service areas with picnic and camping or other intensive-use areas.

The hiking trails are one of the features of the Indiana state parks, growing steadily in popularity. In the development of the trail system no attempt is made to provide more than a designated path with occasionally a few steps or a footbridge to ease the way of the hiker. A popular addition has been the placing of resting places along the trails where the hiker can stop and enjoy some particularly attractive bit of scenery. These are merely sections of logs or flat stones. There is no attempt to landscape the trails or beautify them in any way, giving the hiker an accurate impression of the natural growth of tree and plant in their native state.

As an aid to the visitor seeking exercise and communion with nature on the trails, we provide a trail map. This map is a simplified sketch showing the park boundaries, location of service areas, buildings and points of interest, and the routes of trails and drives. On the reverse side of this map is a description of the trails and general information on the park and park system. These maps are distributed without charge by attendants on duty at the gatehouse.

More than a hundred miles of bridle paths are marked in the six state parks where riding stables are maintained. These stables, like other service buildings in the parks, are designed to harmonize with the setting in which they are placed—there being no attempt to standardize their appearance. Horses are provided by individuals to whom the concession is leased from year to year, a practice which has been generally satisfactory. Reports from the managers of the state park riding stables this year indicate a bigger season than in the past.

We have facilities at four of the parks for group outings of boys and girls, making it possible for them to enjoy an outing at low cost. Last year we had more than fifteen thousand overnight occupancies in the group camps and this year we have a record number of reservations. The demand for group camp accommodations this year was greater than we could handle with our present facilities and at the present time we are considering the establishment of additional units.

We have three group camp units at McCormick's Creek, one at Shakamak, one at Dunes and one at Pokagon state parks. Each unit includes a mess hall and kitchen, bunkhouses, administration building and bathhouse with showers and modern toilets. Dishes, cooking equipment, tableware and cots are provided, with the result that the only thing the campers must furnish is their food, bedclothing and such personal effects as they may require. These camps are rented, equipped, at a charge of 25 cents per occupant per day.

In addition to the facilities enumerated, occupants of the group camps are given free use of swimming pools or bathing beaches at designated daily periods, they can avail themselves without charge of the services of the nature guides for bird and plant-study hikes or illustrated lectures, and for a small additional fee can have riding lessons at the park stables.

The group camp at Pokagon has been developed on a different plan. This unit, established three years ago, has been leased for a three-month period each summer to a Director sponsoring a summer camp for boys. Here the boys receive instruction in woodcraft, swimming, riding, sail-boating and other outdoor forms of recreation under competent supervision. This camp was established as an experiment and has proved very successful both to the operator and to Pokagon State Park in which it is located.

During the past summer—from June to September—more than fifty thousand park visitors participated in activities sponsored by the nature guides. These activities ranged from daybreak hikes to study birds, to evening lectures on the flora and fauna of the park. Last year we maintained nature guides at five of the state parks and this year will extend the service to include a sixth. As nature guides we employ college and university graduates, most of whom are teaching subjects related to plants, birds and wildlife. We anticipate the further extension of this service to include all the parks, and for longer periods.

To supplement the nature guide service at McCormick's Creek State Park, a natural history museum was established slightly more than a year ago under the supervision of a former member of the University of Chicago faculty. The collections gathered and displayed are taken from the park and immediately adjoining area, including birds, the smaller forms of wildlife, plants, geological specimens, and aquatic life. This met with an enthusiastic reception and during the past year voluntary registration at the museum showed more than eight thousand visitors, approximately 20 per cent of whom came from outside Indiana. Twenty-eight States and six foreign countries were represented. The museum has a particular value to student groups engaged in the study of botany and related subjects. A number of such groups included a visit to the museum as a part of their field trips.

Water plays an important part in the recreational value of Indiana's state parks, each of which has a stream flowing through its borders or contains a lake—natural or artificial—to increase its value. Thousands enjoy the beaches on the lakes at Pokagon, Dunes, Bass Lake and Shakamak, and the pools at Brown County and McCormick's Creek. Each beach and pool is under the supervision of life guards who have attained examiner ratings in First Aid and Life Saving tests sponsored by the American Red Cross.

Lakes in or bordering the parks serve another group of visitors—

that large and enthusiastic body of fishermen. Indiana, by a stream-improvement-and-fish-propagation program sponsored by the Department of Conservation, has materially improved fishing in recent years. At several of the parks fish-rearing ponds have been established by the Division of Fish and Game, assuring a continuing stocking of these lakes. These hatcheries are also points of interest for the visitor and his family.

In recent years Indiana, along with other States, has experienced a revival of archery. The bow and arrow, once the major weapon of the middle ages and the Indian warrior, has become the symbol of a fascinating sport. Three years ago we invited all Indiana archers to participate in a "Redbud Shoot" at Brown County State Park, naming the event for the flowering tree which blooms in great profusion through that area.

That was the inauguration of a new service for the state parks and it met with an enthusiastic reception. This year 88 archers, men, women and juniors, representing more than 20 different communities, stood in a drizzling rain to participate in the third Redbud Shoot. In addition, with the cooperation of the Hoosier State Archery Association, regional meets are being held in several of the state parks. Last year archers were invited to try their luck in stalking game in designated areas at two of the properties, observing the same bag limits, seasons, etc., as are imposed on other hunters. This innovation also met with immediate approval and while the archers did not get much game, they did have a lot of fun.

In five of the parks there are inns, operated on a year-round basis, which are attaining increasing favor as winter resorts. In four of the parks the inns are closed during the winter months. At six parks, hotel facilities are available, with one more in prospect. At two of our parks, we have housekeeping cabins where the visitor may cook or not, as he prefers, with meals available at a centrally located lodge or pavilion.

The inns and cottages are operated by individuals under lease, with the department exercising supervision over the operation and rates. We believe that the accommodations afforded in the state parks for approximately twenty dollars a week for meals and lodging are most reasonable. At some of the park inns, reservations must be made weeks in advance, particularly during the vacation season and over holidays. Our inns turned down 493 requests for reservations during the week-end when the observance of Memorial Day added another day to the week-end vacation.

The inns occupy positions of economic value in the communities in which they are located. They are sources of employment, they are markets for increasing quantities of garden products and poultry, and at times when their rooms are taken, the overflow is accommodated in suitable homes adjacent to the parks.

THE STATE PARK PROGRAM IN SOUTH CAROLINA*

H. A. SMITH, State Forester, Columbia, S. C.

IN South Carolina our population is only one and three-fourths millions. This means a population of some 57 persons per square mile. This is somewhat in line with the 43 per square mile in Mississippi, 62 in Tennessee, and 35 in Arkansas. Contrast these figures with 528 persons per square mile in Massachusetts, 644 in Rhode Island, 264 in New York and 214 in Pennsylvania. Consider along with this that 80 per cent of our population is rural population and that only nine cities have a population of over 10,000 people. Our per capita wealth is also low—\$1593 per capita in South Carolina as contrasted with \$3200 in New York, \$3400 in New Jersey and Pennsylvania and practically \$3900 in Connecticut. South Carolina spends approximately 7½ millions for the operation of the state's business. This may be compared with 388 million in Illinois, 298 million in New York and 412 million in Pennsylvania. The spendable income has a direct bearing upon the operation of all parks where even a portion of the maintenance charges are to be collected from the park users. The spendable income of the ten southern States averages only \$315 per person. In South Carolina in 1936 the average spendable income was \$250; in 1932 it was as low as \$167. This is in comparison with the average of \$564 for the entire country, \$590 for Ohio, \$629 for Illinois, and \$843 for New York. All of these figures have their effect upon state park programs and result in particularly low figures spent per capita for amusements. This figure in South Carolina is \$1.77 and only 71 cents in Mississippi. The \$1.77 in South Carolina is to be contrasted with \$5.19 in Pennsylvania, \$6.69 in Illinois and \$11.37 in New York.

Looking at it from a slightly different angle, our 80 per cent rural population is certainly not cramped for space. With only nine towns of over 10,000 population we do not have to go far to see natural beauty. It might, therefore, be questioned whether South Carolina should enter on a state park program under any conditions, and yet regardless of these facts, regardless of our small population, our poverty, our rural distribution, our small expenditures for State Government, it is felt that there is a need for a state park program. But because of these figures, it is believed that that program must take on somewhat different characteristics from the programs long recognized by your Conference as the ideal. We believe that we have a need for the preservation of beach and forest and stream areas against the time when an ever-increasing population and industrial progress will make such things hard to find. There is a need for a concentration of beauty as a demonstration of what can be done with our native plants. There is a need for higher

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standards in the operation of all recreational areas, public and commercial. There is a need for organized recreation under capable supervision looking toward unity of action. There is a need for places at which people can spend the rapidly increasing hours of leisure being handed to them under our new social regime.

And so, with the assistance of the National Park Service, Mr. Robert Fechner, and the Emergency Conservation Corps program, we have embarked upon a state park program and are now entering our fourth year on construction work. Our parks number twelve, if we include state forest areas and recreational demonstration areas, and the total area is approximately 30,000 acres. They extend from the seashore to the mountains; they include the Palmetto, Yucca and Yaupon growth of the semi-tropical low country and the white pine-hemlock areas of the Appalachian Mountains. They extend from sea-level, the lowest point in the State, to the mountains and include Pinnacle Mountain, which, at a 3,400-foot elevation, represents the highest mountain in South Carolina. They vary in size from 320 acres, which include a half mile of splendid ocean beach, to 2,800 acres of state-owned property and 6,000 acres in the recreational demonstration area. In general, the areas are 100 miles apart, although this has been violated in the mountain area in the vicinity of our most densely populated region.

The question may arise as to why we have so many parks in view of our financial situation, and our answer is that it is our financial situation which makes necessary the greater distribution of parks. When one has but \$1.57 to spend for amusement and when one has a total annual expendable income of only \$250, one does not include within his budget trips to areas which will consume any considerable quantity of gasoline.

The question may arise as to where we can find sufficient outstanding areas to justify the name of state park. If, in order for an area to be designated as a state park, it is necessary that that area be of outstanding state importance, then you and we both may well question whether South Carolina has a state park program. But we do not feel that way. On the contrary, we feel that it would be a mistake in South Carolina to limit our park areas to such an extent as to make some such areas unavailable to the people. Were we to adopt such a policy, we would be left with probably two parks—Table Rock with its 3,400-foot elevation and Edisto Beach with its palm trees coming down to the water's edge. That would mean that the bulk of our people would have to travel 150 miles in order to reach a park, and they cannot afford to do that. On the contrary, instead of acquiring areas of outstanding state importance, we have acquired areas of outstanding regional importance within the State and in so doing we cannot help feeling that we are entirely consistent with the policy of the National Park Service. May I illustrate with an example? In Chester County, South Carolina, in

the north central portion of the State in the red hills of the Piedmont, we have a small park which contained, when we took it over, a 150-acre lake with water so laden with silt and so red as to be anything but beautiful. The surrounding terrain is picturesque but typical. It is neither coastal area nor mountains. This area will not attract the people from the mountains nor the people from the sea. The area was taken on with some misgivings. It has long been the bone of much contention among the employees of the National Park Service. It is far from outstanding state-wide importance, yet it is actually the best thing of its sort that could possibly have been obtained within a radius of some 50 miles, and because of that fact and because of the large industrial population surrounding the area, the attendance records upon this area have far exceeded the majority of the parks within the State. This area is of outstanding regional importance within the State and, as such, it ranks in our state park system, I believe, in the same category as the Great Smoky National Park ranks among the National Parks of America. It is not the best in the State, but it is the best in the region and it is available to the people.

We have, in general, agreed that a state park should be an area set aside for the preservation of natural scenery and historic interest, reasonably accessible to the people and dedicated to their recreation. Upon that program we have proceeded. We have refused to accept hundreds of areas for development as state parks. We expect to refuse to accept hundreds more. We appreciate the difference in the localities which have already been accepted. We appreciate the fact that there should be a different standard of development—that some areas lend themselves to certain features much better than do others. On some of our areas we have undoubtedly made mistakes, but we have made available to all the people a park of their own where they will be assured of the preservation of that scenic and historic interest and where some forms of recreational activities will be made available to them.

We have tried to make our parks available to all the people—to the tenant farmer and his dozen kids and his Model T Ford, to the club women with their love for history and flora and fauna, to the organized study groups, to the farm women—to all classes, and today our parks are available to them.

The question then naturally arises of how we are going to render such a service, how are they to be financed. This coming year we are going to spend approximately \$35,000 upon the operation of state parks. That is not enough money to properly operate our entire park system when the time comes that the operation job is ours alone. We hope that as the parks become available to the public, more money will be forthcoming. We hope that we will be able to maintain a standard of operation comparable to the standards which you have in mind. We want to do it and we expect to do it. But what if we cannot? Suppose

instead of four life guards on a beach we have to resort to three; what if instead of three attendants to pick up paper, we have to get along with two; what if instead of having a custodian thoroughly conversant with the birds and flowers and the trees, we have to resort to a custodian who is able to replace a broken sewer line. It will be unfortunate, of course.

The question boiled down, resolves itself to this, should we have a limited number of parks maintained on the very highest standard and accessible to but a few, or should we have a larger number of parks available to a greater number at a smaller expense, operated upon slightly lower standards? Back of the state park program, I believe, is a program of conservation—human conservation—and any program with that foundation which does not take into consideration all of the people in all walks of life, in my opinion, does not reach its goal. If we were to assume that a smaller number of parks could be operated on a higher standard, we would not be entirely correct. Aside from the merits of the state park program is, unfortunately, the necessity for providing a service to the constituents of those who make the appropriations. Whether we like it or not, those are the facts, and we in the South, particularly, must recognize the fact that, to some extent at least, those individuals must be satisfied.

Maybe we are wrong. Time alone will show. We have tried to get the best advice available in the development that has been carried on. We have listened to one authority on parks who objects to artificial reservoirs in any park. We have listened to another authority on parks who not only favors artificial reservoirs but advocates baseball fields. We do not agree with the latter; nor do we agree with the first. In a country where water recreation takes highest priority, where red bugs and chiggers beset the path of the nature lover and where daily temperatures for weeks at a time over 98° and even 100° make activity difficult during at least four hours of the day, we cannot help believing that water recreation is essential, even though artificial lakes be necessary to provide it. On the other hand, we do not feel that it is particularly important at this time in South Carolina that the State adopt as one of its functions simply the operation of a bathhouse. But if by reason of the operation of a bathhouse, even though it be upon an artificial lake, we can attract multitudes to an area of natural beauty; if we can throw them in contact with natural surroundings, give them an opportunity to study nature, to observe the possibilities of properly supervised crowds; if we can, through the operation of bathhouses, increase their interest in the great outdoors; if we can teach them to hike and camp and to spend their leisure hours outside of the pool rooms and the dance halls; if we can leave with them some constructive thought as to the better use of leisure time, then we feel that that function is one entirely proper for the State and Nation, and that is what we are

trying to do. It may be that we cannot conceal our utility wires, it may be that our roads will not be hard-surfaced, nor our parking areas paved with concrete, it may be that we cannot prune each individual tree of our forest, or paint the scars when nature runs wild, but we feel that we can at least provide and are providing something which is well worthwhile for all of the people for all the time.

Our conditions are different; our service must be different. Our standards may not be your standards, but relatively the difference between what state parks will provide and what is being provided today will be just as great in South Carolina as it is in your own home State.

VIRGINIA STATE PARKS*

WILBUR C. HALL, Chairman of the Virginia Conservation Commission

VIRGINIA was in a rather fortunate position when the Civilian Conservation Corps was made available for use in the development of state parks. Honorable William E. Carson, my predecessor in office, had foreseen the possibilities of a state park program for Virginia. His vision and energy had stimulated the program to such an extent that it was relatively simple to select areas of sufficient character to make good state parks and strategically located in relation to the population.

Virginia was again fortunate, in that public-spirited citizens and business firms contributed the major portion of the land necessary for our six parks. The State made an appropriation for the purchase of a portion of the acreage in some parks so as to round out the boundaries. We have one recreational demonstration project also under our supervision, though all the land for this area was purchased by the government. This project is still incomplete.

If the Shenandoah National Park is included, Virginia can now boast of having a park within a radius of fifty miles of all residents, with the exception of those living in two counties.

We have never felt that state parks should be developed with the sole thought of furnishing places for extended vacations. Rather, the prime purpose has been to provide places where men, women and children may go to enjoy a day of rest and recreation by getting back to nature. Virginia looks upon her state parks primarily from the standpoint of availability for day use. Of course, we have cabins in each park and guest lodges in two parks, in which one may make a more extended stay, but the cabins are limited in number and the demand for them usually exceeds the supply.

Virginia opened her parks for public use on June 15, 1936—just a year ago. Our first season closed late in the fall of 1936 and we were gratified

*Condensed from a paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

with the results. Out total paid attendance was nearly 110,000 and this figure does not include children under ten, who are admitted free. At the close of last season, our total income was about \$22,000.

The staff at each park consists of a custodian, four rangers and a life guard, though some parks may have more than one life guard. The rangers are required to have Red Cross first-aid certificates. The life guards are required to hold a life-saving and examiner's certificate.

There are 65 cabins throughout the system, completely equipped and furnished, with showers, running water, modern sanitation, beds, mattresses, blankets, pillows, linen, kitchen utensils, ice box, cutlery and all necessary furnishings.

The cabins vary in size, accommodating from two to six persons. Three of our parks are equipped with electricity, and the cabins in them have electric ranges and hot-water heaters. Cabin occupants pay for electricity they use through a 25-cent meter system. Lighting and cooking in the other three parks are provided by modern kerosene lamps and stoves. We pioneered in several items of park equipment, such as electric ranges and heaters and sanitation.

Reservations for cabins are made for a minimum period of one week and a maximum period of two weeks, with the privilege of renewal if there is a vacancy. The rates are: \$15 a week for two persons; \$20 a week for three or four persons, and \$5 a week for each additional person. Overnight guests of cabin occupants are charged \$1 per day per person. No charge is made for children under ten years of age, if beds and bedding equipment for them are provided by the cabin occupant. If such equipment is supplied by the park, then the same charge is made for children as for adults.

We require reservation payments to be made two weeks prior to the reservation date. No cancellation of a paid reservation may be made or money refunded unless our Director of Parks is notified at least seven days prior to the reservation date. Money will be refunded on a notification of less than seven days when the Director is able to re-rent the cabin.

Facilities to accommodate overnight guests are provided only in two parks where guest lodges have been constructed. The charge is \$2.50 per person per night. By the middle of the summer, there will be a modern restaurant and store in every park except one.

We studied from all angles the question of handling concession privileges in the parks. We considered the advisability of operating these facilities by the State, but arrived at the conclusion that it would be best to grant the concessions to responsible private parties. After a year of experience, we have found this system to be satisfactory. As long as it remains so, we have no intention of changing. Under our contract with the concessionaires, the State receives ten per cent of the gross receipts; prices must be moderate and approved by the Commission. The con-

cessionaire handles the bathhouse, restaurant and store, boating, horse-back riding—in fact, all service for which a charge is made with the exception of the admission fee at the gate, cabin and guest lodge rentals and overnight camping.

One fact was brought forcibly to our attention during the first season, namely, that it is absolutely necessary to have an adequate maintenance force on duty at the parks during the entire season. Demands of the park users, while relatively simple in character, are urgent. Water supply, sanitation and the utmost cleanliness must be provided at all times; we found that it takes a minimum of about six men to furnish adequate service at each park. Virginia's parks are all rather large, running from 1,226 acres in the smallest to about 5,000 acres in two of the mountain parks.

Who pays the bills? The general public, of course, pays in part, but we are convinced that the actual park users should pay a fair proportion of the expense involved in providing facilities for their own benefit. Virginia has an admission charge—10 cents per individual. Children under ten are admitted free. This charge, though small, is sufficient to earn revenue and provide a nice sum to present to the budget committee when requests for appropriations are made to the Legislature. By charging an admission fee, it is also possible to allow out-of-state visitors to contribute a small share to the maintenance and operation of the parks.

You may ask: Have we had any complaints about the small admission fee? Our answer is in the affirmative, though the complaints are relatively few. In almost every instance, they have come from small groups of local residents in the vicinity of a park. We have concluded that since these persons visit the park so much, they are inclined to oppose the fee. To meet their complaints, we are instituting something new this season—an annual season pass, which we will sell at a reduced rate. We believe this will solve the problem.

While we appreciate that there are arguments for and against an admission charge, we are nevertheless convinced that it is an equitable arrangement for obtaining at least a portion of the funds required for operation and maintenance. As time goes on, park executives will be more and more forced into the position of providing some of these expenses out of income received, and the wise park executive will anticipate the fact by initiating a charge in order to avoid the criticism that will surely develop if the charge is introduced after the parks are opened and the public has become accustomed to free park facilities.

A state park is never completed. Facilities must be expanded and revised as attendance increases; buildings and roads must be maintained and sometimes extended.

Even the most experienced of planners, designing a new area with no record of the usage to which the area will be subjected, is more than apt to make mistakes, and we have found that we have made our share. On

the staff must be men to plan in advance for such seasonal revisions and additions as are required. In each park an adequate force for maintenance and operation must be maintained. Let me here urge you, from the experience gained in our first year of operation, to plan for funds sufficient to permit proper operation.

The future will see additional cabins built at practically every park. These will include those of the present type as well as cabins which may be rented at a slightly lower cost. There is need for tennis courts, handball courts, and for children's recreational areas, with swings, see-saws, sand piles, wading pools, etc. Consideration is being given to the group camp, built to accommodate about 100 persons, with a staff for each camp. There is a growing demand for overnight campgrounds for trailers and for tent campers. A saddle barn, equipped with modern conveniences, is planned for each park, thus making possible horseback riding. Improved and enlarged trail systems are contemplated. Museums and craft shops also form a part of the future program. Consideration is being given also to a building for biologists, naturalists and entomologists, who find such areas vitally interesting in their professional studies. In general, the program of future development will be dictated by the amount of funds available and with the view of meeting the recreational needs of the largest number of people.

We do not feel that there is a need for any more state parks in Virginia. We consider it impracticable to provide additional areas in proximity to parks that are already developed. Regardless of how the funds for maintenance and operation are procured, it is a fact that attendance and usage are the life blood of a state park and we think that excessive competition would greatly diminish the use of the areas that we now have reasonably well developed.

Virginia has state parks that are outstanding in character. We have endeavored to preserve typical areas of each part of the State—the mountains in the western and southwestern portions, the lovely cliffs on the Potomac River, a section of the seashore and a portion of the beautiful rolling country in the Piedmont section. Supplementing the various places of historical interest in our State, we feel quite sure that these parks will prove more popular and serve a greater number of people annually.

Like many other States, Virginia has depended upon the Federal Government for man power and for funds for the development of her state parks. We are grateful to the Civilian Conservation Corps, the Emergency Conservation Work program and to the National Park Service for their valuable contributions to our program.

Use of State Parks

ORGANIZED CAMPS*

WILLIAM A. WELCH, General Manager, Palisades Interstate Park

CONCERNING the practical side of group camps in state parks, I have heard objections that have been offered to the segregation of areas in state parks, which belonged to all the people, to one group for camping purposes. There is a very simple answer to that. You do not want, in the first place, to put an organization camp in an area that lends itself particularly to mass recreation. Camps require some isolation. It is not a camp unless it can have such isolation. The camper uses the area 24 hours a day; the average casual park visitor a little less than six hours, I find. An example of a camp of a hundred, using an area large enough for a camp of that size, three acres, say, will, in a ten-week season, have 168,000 hours of recreational use of that area; reduce that to your casual visitors and it figures out, I think, 24,000 visitors. That is rather intensive use for three acres in an isolated portion of a state park, and it does not leave much room for justified criticism for the segregation of such areas to the use of one organization. We had a little of such criticism at first, but it soon wore off, and for that very reason.

When we first began our camp movement in the Harriman section of the Palisades Interstate Park, about 23 years ago, we did not have any precedent to study. For economic reasons principally we built very cheap camps, as we realized that these camps were going to have to be replaced. And so we adopted as a part of our camp program the idea of amortizing all of those structures and making the rents pay that amortization. We are satisfied as to the wisdom of that policy, because we have had to abandon some of the camps for many reasons. One of the principal reasons that has called for the reconstruction of these structures in the camps has been obsolescence. And that is why I now believe that it is a mistake to go too deeply into permanent structures.

We do not know what is going to happen 25 years from now. When we first built our roads at the beginning of the development of our park, we built them for carriage horses. We could not foresee that the automobile was going to do away entirely with the horse, and require a different type of construction. We have had to reconstruct all of those things at considerable expense, often greater expense than primary construction would be. Nor do we know what is going to come of this camping movement in the future. We do not know just what type of existence and life our people are going to demand 25 or 50 years from now. We all hope that the camp movement which has been started and

*A talk given before the Midwest Regional State Park Conference, St. Louis, Mo., November 13, 14, 15, 1936.

is making great strides will stay with us, but we have no assurance that it will.

There is one thing that is very apparent at present. The principal problem that faces those who are directing the use and maintenance of our state parks now is where the money is coming from to maintain these parks. More and more we are being told by our legislators, "You must make them self-supporting," and while it is hardly possible to do that in all instances at present, you can make the people pay enough for the special privileges they get in the parks to earn at least 60 per cent of the total cost of maintenance. And if you do that with the casual visitors to the parks, you should do the same thing with the campers.

You are giving the campers the use of the land, the benefit of protection and the use of the sanitary facilities and water, which are, of course, the prime considerations and the first things to be studied and constructed in any camp area. Those, all of the general public are entitled to use as a part of the general cost of the park. But all of the other special features which go with the camp—and that, of course, means the structures—are to be devoted to this one particular group, and they should be made to pay for that special use and they ought to pay a little bit more because they have one area in the park segregated and reserved for them.

The policy that we have worked out on that is a rent of 12 per cent per annum of the total capital cost of structures, and that 12 per cent takes care of a fair proportion of the general overhead expense of the park, attends to the maintenance, the care and the upkeep of the grounds themselves and of the buildings, provides for the garbage disposal and additional protection by policemen—by that I mean that we keep officers on duty 24 hours a day in camping areas, and that is only a short season and additional men must be employed to give that extra protection. That also is an item that they should pay, as it does not do the general public any good. We have found out that this charge usually amounts to about \$1.20 a week per camper. If an organization is paying \$1,200 a year rental for a camp and for those facilities which go with it, that means that on a ten weeks' attendance of 1,000 children, which would be a 100 capacity camp kept full, it will cost them just \$1.20 a week per person. All the organizations which occupy these camps have just as much trouble raising their budgets as the churches do. It does not make any difference whether they are commercial organizations; they have to tax their reserves to set up the cost of maintenance. If they are charity camps, or partially charity camps, they have to raise their supporting funds by public contribution and they have to start off their budget with that one item. From their point of view that is pretty high. We found, three or four years ago, in the very bottom of this very well-known depression, that some of these organizations had to curtail their activities, use the camp for half a season and divide it with some

other organization, and some of them had to give up because they could not raise enough money to carry through their program for a full season. Our Commission cut down ten per cent on those rentals for a year, and took it out of reserves. We did it for three years, but the red figures began to mount up and this year we have had to restore one-half of that reduction. And that will not quite catch up. So that figure must be pretty close to right in conditions such as we have.

Now you can not use that as a basis for any calculation at all where there are only one or two group camps to be administered in one area, because we have 93, and this is an average of all of them. Of course, that cuts down the proportionate cost of everything that goes to maintain those camps. All the educational and nature guide work can be carried on very much more cheaply per camp, of course, in a large group of that kind, than it could for one or two isolated camps. The necessary sanitary and health-inspection costs do not amount to very much when spread over a group of that size, but they would amount to considerable in one or two camps. The same with the camping organization that manages them. So that you can not use that figure as a criterion for the cost of maintenance and operation aside from the organization expense itself; you can not use that figure with any wisdom at all with regard to isolated camps, nor to small groups of group camps. The more expensive you make the structures, the higher your rentals will go if you mean to amortize them and to take care of them properly. So that the cheapest, well-constructed structures, over the years, offer the best terms to the organizations which are going to use them, and provide you with sufficient funds to take care of them properly. We have amortized our buildings on a 25-year life, not with the idea that the buildings themselves would be gone and need replacement at the end of 25 years, but for obsolescence; they need changing, and I do not care how carefully you design camp structures, you are going to please only one or two of the many directors who will occupy them with their camps.

Of course, the various directors who conduct these camps run budgets from five dollars a head per child up to ten and twelve dollars for food. So that you can not get at any average of the cost to the organization for conducting these camps, not even camps of like character which handle the same type of children. There is just as much variance in it as there is in a little check that we keep on the amount of garbage which we haul away per day from each of these camps. Over the past seven or eight years, weight of garbage has varied from 1.1 pounds per day per person to 11.7 pounds per day per person. That may be all camp directors' faults—I don't know just what it is—but I am glad to say that the record of the Girl Scouts has never reached 1.5 yet, and is among the best. This is a queer place to go to get figures, but when that much goes out the back door every day there is something wrong somewhere. So I do not know of any way to lay down perfect rules.

There is just as much difference in the location of every one of these camps as there is in this garbage business. Your camp will cost you twice as much money in some locations as similar buildings will cost you in another. The terrain has a good deal to do with it, the nearness to markets, the markets themselves, the cost of labor—all of the costs that enter into those things differ everywhere, so you can not strike any average. We have tried to build 100 capacity camps at a limited cost of \$10,000 for the buildings. That does not mean any ground improvements, or water and sanitation, just the structures themselves, for that is about the limit that organizations can afford to pay, and this amount will support the State Park organization that has to administer the whole activity.

WHAT TO DO ABOUT THE TRAILERS*

RALPH N. JOHNSON, Inspector for the Illinois Department of Public Works and Buildings, Springfield, Illinois

ABOUT seven years ago certain people with inventive ideas started to build two-wheel trailers which were attached to the back of cars when the owners were going on camping trips. Into these carts were loaded tents, bedding, food and all other articles which could not be roped to the car.

This trailer idea soon developed into a folding affair which could be opened up at night to provide sleeping space for two or more people.

Gradually the trailer was developed, until today we see many of them on the highways. They are now homes on wheels with sleeping quarters, baths, toilets, galleys, and all modern improvements.

The bodies are streamlined to cut down wind resistance and conserve on gasoline. Brakes are now being added for safety.

The first trailers were built by owners from salvaged parts and were not at all attractive; soon a few small companies started to build them in garages and back rooms. Now the business has grown so rapidly that huge factories are employing scores of skilled workmen to fabricate trailers of virgin material.

Over 200 companies are now building trailers, and some of the larger automobile plants, realizing that the trailer is becoming more popular each season, have started quantity production.

As the trailers multiply they will present new conditions and cause all manner of new problems of control. Legislators representing the various States of the Union will be required to introduce new laws to govern the operation of these trailer homes. Certain laws will be required to limit size of trailers. Health and sanitation problems must be reckoned with. How shall taxes be levied, what license fee should be

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paid, where shall they be allowed to park, do owners with no street address pay an income tax? If so, how can the Collector of Internal Revenue keep a record of them? Can a law be passed to allow trailer families to vote? Many States have already passed laws licensing trailers, with fees averaging \$6 per year, and this amount provides considerable revenue for the automobile departments. As the number of trailers increases, the amount of income to the States will increase and more money will be available for highway work.

The trailer movement is really sweeping the entire Nation and we who are more or less responsible for the proper planning of state parks, must realize that it is necessary to provide accommodations for visitors who come to our parks with trailers in tow.

During the last three years modern campground areas have been developed to accommodate the visitors who come to our parks with tents and an urge to cook a few meals over an open fire. All of these areas were carefully laid out with proper space for the tent, the car and the fireplace. Community bathhouses were built, water systems were installed, and now we find that some of these sample people have purchased new trailers and are coming to the parks expecting to find a place to stop.

The bathhouses and water lines may be satisfactory now but the drives are not wide enough, the curves need longer radii, the parking spur must be connected with a drive at both ends to avoid having to back the trailer in place, the fireplace may not be necessary and the space cleared for a tent and so carefully screened with planting seems to be out of order in the new scheme of things.

The owner of a trailer expects to find a level area of sufficient size to park the vehicle and some of them even expect a concrete platform. This may be proper in a city trailer park but certainly not in a state park. I believe that trailer sites may be laid out in an informal manner and screened one from another by planting in such a way as to be quite homelike and private.

Charges have been made for camping privileges in our parks, and it is, of course, proper to charge for trailer accommodations, which, being more expensive to maintain, naturally demand a higher charge.

Some private concerns charge \$3 per week for parking and \$1 additional for electric connections.

Five to eight thousand people are living in trailers. Last year 60,000 trailers were built, this year considerably more. There will be close to 100,000 built next year. Something has been started and seems to be going on, because the big automobile companies now are starting to build them. Some of us do not approve of this horde of trailers rapidly coursing around the country, but if 100,000 people want trailers, that is their business, and the state parks will be obliged to take care of them.

EDUCATIONAL OPPORTUNITIES IN STATE PARKS

ANSEL F. HALL, Chief, Field Division
of Education, National Park Service, Berkeley, Calif.*

IT IS with greatest hesitation that I approach the subject "Educational Opportunities in State Parks," for I realize that comparatively little is known and practically nothing has been formulated and placed on record which would lead to a definite and comprehensive discussion of the topic. Some fifteen years of experience in interpreting the scenic, historic, and scientific features of the national parks have taught those of us who are actively engaged in the so-called "educational activities" that we are still but "feeling our way," so to speak, in an important new field.

In approaching this subject of educational possibilities in the state parks, I am somewhat heartened by the platitude expressed by Abe Martin in a comic strip some years ago. You may recall that that barnyard philosopher said, "There's no man as can speak so convincingly as them that ain't hampered by facts." Well, we find ourselves somewhat in that position today when we plunge into this subject of so-called education in the out-of-doors.

In order to open a discussion on educational opportunities in state parks, I shall have to broaden my subject in one sense and limit it in another. It must be broadened because of the fact that we shall have to deal with principles which apply not only to state parks but also to most other outdoor recreational areas as well. Let us, therefore, think of our problem as that of "educational opportunities in outdoor recreational areas." The principles which we are to discuss can be applied not only to state park areas but also to national parks and monuments, national and state forest areas, and also to certain of the larger county and municipal recreational reserves.

In delimiting the subject under discussion, I would strongly urge that we define the meaning of the word "education," as it applies to our problem. For more than fifteen years we in the National Park Service have been seeking for a better term—one which would more aptly describe our program in interpreting the features of our great wilderness areas to an interested public. Meanwhile, for lack of a better term we call this phase of our work an "educational program"; the men who meet the public are known as ranger-naturalists. But the term "educational" is certainly not used in its academic sense; instead of entering the field of formal instruction, we are endeavoring to assist our visitors to gain a keener appreciation and enjoyment of the great things in nature—yes, and of history, too—an appreciation and enjoyment which will be based primarily upon understanding. That, if you please, should be the keynote of our so-called "educational program."

*Mr. Hall is now located in Mesa Verde National Park. This article is condensed from a paper presented at the Far West Regional State Park Conference, San Francisco, September 1, 2, 3, 1936.

What activities, then, shall we include in such a "program"? Guide service, lectures, exhibits of various kinds, publications, research and other such activities—even general information service—may all contribute toward the major objective. But it is essential that we, as administrators, shall define our objectives and that we shall have a clear understanding of some of the principles upon which our activities must be based. Otherwise we may set up the machinery and go through the motions, so to speak, without effectively achieving desired results.

The development of an educational program in the state parks—or any other outdoor recreational area, for that matter—should take a logical place in the administrative evolution of that area. Most large parks pass through four definite stages of development. I purposely put this statement in the *present* tense because there are right now many state parks in each of these developmental periods. The first stage might be called the period of *acquisition*—a far from simple situation, as we learned from our speakers on yesterday's program. The second stage might be labeled one of *protection* or *conservation*—preserving the area from encroachment and exploitation; many problems in this field were discussed in today's morning session. A third period of development I like to call one of *preparation*—a period when roads, trails, buildings, and other physical improvements are being planned and constructed; in other words, the park is being "prepared" so that the material needs of the visitor shall be provided. For the fourth period I have not yet devised a suitable name but for purposes of convenience let us call it the *period of maximum utilization*. The machinery for administering to the physical wants of the people having been provided, we can turn our attention to development of a permanent plan of operation which will provide well-rounded service in all fields. It is in this, the final period of park development, that our so-called educational program plays a major part in current administration—and may, in fact, become the means of making the park outstanding in its field rather than just a place for physical recreation.

Assuming that the park has developed to a point where we can begin to provide educational—or "interpretational"—service to the public, let us ask ourselves how to begin—how to plan a program which will assure maximum accomplishment with the resources at our disposal.

This problem of planning an educational program is much easier approached from the "hindsight method." In other words, we can profit from some fifteen years of—shall we say—feeling our way experimentally in this new field. By a little stretch of imagination, we might even say that we will endeavor to apply the "principles" worked out in the colossal empirical experiment of serving some fifteen million persons. Let us, then, approach our problem from the practical criterion of what field methods best accomplish our objective rather than from any preconceived notions of the subject of "education" in the academic sense.

In the normal course of evolution, park educational activities, so-called, will probably have their beginning in the appointment of one ranger or custodian whose duties will be mainly the assembling of data, conducting an information bureau, and serving as guide and lecturer.

But it is not necessary to repeat the inefficiencies of the earlier trial-and-error methods. If park administrators give thought to the planning of the educational program many major problems can be met in advance. Intelligent planning will enable the administrator and his staff to develop and maintain a perspective that will not only give direction to the entire educational program but will also provide for its coördination, with other activities and for the accomplishment of maximum results with a minimum of effort.

In planning an educational program, our first problem is to define our objectives and, if possible, to formulate a policy which will definitely place the educational activities in their proper relation to the other features of the current administrative program. This problem is not as simple as it seems—in fact, it is a very complex one and of vital importance, as its successful solution will provide the key to the entire interpretive program.

In attempting to analyze the problem, we must first consider the nature of the area for which the program is planned. State parks, especially, cover a wide variety of terrain and usefulness—so wide, in fact, that no general formula could possibly apply to all areas. In some state parks which were set aside to preserve sites of historic or archeologic interest, there is no doubt that the potential educational program may be of paramount importance. The same might apply to areas set aside to preserve features of geological or biological interest. At the other extreme we have certain reserves set aside primarily for picnicking and field sports and suitable only for this use. Then, in between these two extremes, we have the ocean-side parks which might preserve much that is of scientific interest but must at the same time administer to the physical recreation of great numbers of visitors. Then there is a vast number of parks which preserve features of scenic interest—canyons, waterfalls, lakes, forests, rivers, mountain tops—most of them ideal as camping places and most of them well equipped by nature for important educational development of the type we are discussing.

I have roughly divided the 753 state parks of which we have record into five groups. The results were as follows:

Historical and Archeological Areas	168	or	22.3%
Scientific Areas	59	or	7.8%
Ocean-side Parks	37	or	4.9%
Scenic Parks	197	or	26.2%
Areas Devoted to Picnic Grounds, Camping, and Miscellaneous Sports	292	or	38.8%
	<hr/>		
	753		100.0%

In other words, roughly three-fifths of our state parks are suited to educational development and in half of these it promises to be of paramount importance.

The major features of our park will, then, dictate its potential possibilities for educational development. Next we must consider the number of our visitors and their interests. Shall we endeavor to institute a program which will reach every visitor, or shall we endeavor to reach only those who are most keenly interested? In other words, shall we go in for "mass production" or for a very selective program which will reach fewer persons in a more intensive manner? There are many practical factors that will influence our final decision.

Next, we must ask ourselves what physical resources are to be at our disposal. In most cases we must make small beginnings, but those beginnings must be carefully planned in order to be most effective. In considering our resources—both personnel and material assets—we should also endeavor to devise means of coöperation with educational institutions and individuals who might be willing to contribute to the program.

We will also want to know what stories of interest the park has to offer; what part it plays in the history of the area; what Indians once lived there and what do we know about their culture; what are the geological features of the area; what is known about its flora and fauna? Here is a field which may necessitate future intensive research, but, to begin with, we should know the main elements of the story in order to provide for a well-rounded and comprehensive program.

All of these things and many more should be considered in planning for possible educational development. The answers to most of these questions, in so far as they can be reached, will play an important part in furnishing the background for our so-called educational activities.

How, then, shall we actually begin our educational program, and what means shall we provide for service to the public? First, it will be necessary to provide for the appointment of one man—a superintendent, a ranger, or a custodian—whose main duty will be to assemble information and to conduct or direct the program of its interpretation to the public. He must be a rare individual with three major qualifications which peculiarly fit him for his specialized work. First, he must have an inquiring mind and must be well informed about the natural and historical features of the region—or must have wide knowledge of the sciences on which they are based. Secondly, he must have the happy faculty of getting along well with his associates—with other administrative officials in the same area and with the rangers and naturalists who may later work under his direction. Thirdly, and most important of all, he must have that priceless ability of meeting the public on a basis of friendship and of transmitting to them not only facts but also an enthusiasm for the natural things which he interprets to them.

In his entire program our interpreter—or educational officer—must

constantly keep in mind that his main duty is not merely to *inform* the visitor—not merely to hand out facts, but, rather, to instil in him an understanding and *appreciation* for things as they exist in nature. He should present an intriguing introduction to the wilderness which will open the eyes of visitors to the things which are about them. Dr. Frank R. Oastler very aptly expressed this major objective in a report written eight years ago in which he said:

The purpose of this educational program is to enable those who visit the parks to obtain an accurate interpretation of the natural phenomena presented by each park and peculiar to it, in order that they may carry away with them a greater appreciation of the value and delight of a better knowledge of those expressions of nature.

Time prevents discussion of all the ways and means of accomplishing these objectives, but we might mention a few of the most promising activities which are already playing a major part in the educational program in our national parks.

One of the most effective of these activities is the guided trip afield which offers our educational officer an opportunity of giving the visitor first-hand knowledge of the history or the natural features of the area. Here, again, we must emphasize the fact that our major objective is not merely to name the birds, the flowers, the trees, and the rock formations, but to build up an understanding of the ways in which all living things exist together in natural communities. We cannot expect to send our visitors away with a complete knowledge of the flora and the fauna, but we *can* open their eyes to the delight of personal exploration and discovery—in short (to use the words of John Muir), we can “entice people to look at nature”—and may I add that our success will be measured in the extent to which we influence them to “keep on looking” after they leave us.

One of our ranger-naturalists wrote some years ago: “It matters not to me if they have learned what a wild geranium is or whether they can distinguish a Clark’s Crow or a grasshopper. What does matter is whether they have been left with an aroused interest in living things; whether or not that interest has become so vital that they will not stop learning but will continue in this great field of knowledge and delve further and further into the mysteries of nature.”

Evening campfire lectures offer great possibilities, but they must be carefully planned so that they represent not merely second-hand information. They must provide a background for personal observation—an understanding of the bigger things. They must, if possible, tempt the visitor to go out for himself and see things in their natural surroundings.

Self-guiding trails—nature trails—have been used with marked success in many state parks. They offer a simple means of helping the visitor to explore and observe. They are not merely labeled trails, however. Perhaps I can best illustrate their philosophy by quoting a label which we placed on a stump—an ordinary lodgepole pine stump—adjacent to

one of our nature trails in Yellowstone. We might have stated: "This is a stump of Lodgepole Pine—*Pinus contorta*." Instead, the label reads: "How old was this tree? Each ring represents one year's growth. Could we grow another in your lifetime or mine?" The effect of this label was astonishing. Each party paused there, some of them for a long time. We observed many discussions. We cannot measure the results in concrete terms, but we suspect that this one label did much toward opening the eyes and stimulating the thought of many of our visitors.

We should also consider the park museum as a most important aid in the park interpretive, or educational, program. The old-fashioned idea of a museum is a building housing a collection of specimens. This I like to call facetiously a "museoleum." We conceive of the museum as an *organized system of ideas*. The building, the equipment, even the exhibits, are subsidiary to the *idea* which is to be presented. In establishing a park museum, we therefore first study the area, endeavoring to bring together all that is known about its history, its archeology, its geology, and the other natural sciences pertaining to the region. We then evaluate each of these subjects as they relate to the park. Then our planning staff endeavors to formulate a concise story which can be illustrated by specimens, charts, diagrams, labels, models, picture—in short, every device known in modern museum practice. The successful culmination of all these studies results in a carefully drafted exhibit plan which is developed concurrently with the planning of the building. The final result is a museum in which the visitor with only fifteen or twenty minutes at his disposal can build up a well-rounded understanding of the main elements of the story of the region—its history, its Indians, and its major natural features. The primary objective of a park museum, then, should not be to bring a vast number of specimens indoors, but, rather, to tell a simple consecutive story which will lead visitors to the out-of-doors to enjoy the *real* museum which is the park itself. In this manner, we feel that the park museum contributes indispensably to our so-called educational program.

There are many other activities that offer interesting possibilities in a park educational program: coöperation with public schools and universities; collaboration in research programs; issuing of guidebooks and leaflets; publication of nature notes; writing of articles for publication in current periodicals; carrying of the program into the public schools by means of lectures. The possibilities are almost endless and they combine in infinite variety and with unlimited promise of adding to the enjoyment and inspiration of the park visitors—enjoyment and inspiration that will be based upon sympathetic understanding and a fellowship with the out-of-doors.

I can perhaps best close by quoting the admonition of the old-time naturalist who said "to be nature minded is to be nature wise."

The Future

THE FUTURE OF STATE PARKS*

ARNO B. CAMMERER, Director, National Park Service, Washington, D. C.

THE future of State Parks rests with the States themselves. The state park idea is not new; in fact, it preceded the national park idea by many years and probably gave rise to it. We are all familiar with the recent progress in the growth of state park systems as a result of the emergency programs of the last four years. It is probably not unfair to state that at least 20 normal years of that growth have been telescoped into the last four, and the distant view has been brought into just that much clearer focus. In this field the future is now upon us and our plans must be converted into action.

During the last four years we have heard here and there expressions of apprehension that the Federal Government would absorb the state parks and develop and administer them by a remote control. Because of that apprehension, I should like to quote from a letter that the President recently sent to the Governors of the States. The substance of his message is as follows:

In the first place, it is vitally important that each State should make adequate arrangement to maintain the physical improvements that have been accomplished by Civilian Conservation Corps camps on state property. This is with especial reference to state parks and state forests.

I would be glad to learn what measures your State has taken to insure the proper maintenance and orderly development of this work in your State.

Secondly, and of equal importance, it is necessary to maintain a competent staff to supervise and direct this maintenance and development work.

Because of the reasons referred to at the beginning of this letter many States did not have a technical staff set up to cooperate with the Federal Government in this work. In order that the high type of supervision considered necessary for the success of the work could be maintained, Federal funds were made available for the employment of technical and other personnel where state funds were not available.

It seems to me that the time has come for each State to make proper provision for taking over this part of the work.

In preparation for the probable establishment of the Civilian Conservation Corps as a permanent Federal agency, consideration is now being given to what has been accomplished. Many camps are completing their approved work projects and it will be necessary in the coming months to find new work projects to which companies can be assigned. It will naturally follow that those States which show a proper concern for their part in this cooperative work with the Federal Government will be entitled to receive first consideration.

In the statement that I have just read, the lines of responsibility are clearly drawn and I believe there is no question that it is a healthy statement. While there may have been an apparent and temporary deviation

*A paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

from this general attitude during the depression, it is now apparent that the coöperation of the National Park Service with the state park authorities must, from now on, be contingent upon the extent of responsibility assumed by the States.

During the last year a number of the States have taken steps to meet their responsibility. Several States have recently enacted legislation for the first time setting up park authorities and empowering them according to the best known practices. Several others have extended and improved the scope of the functions of their park boards or commissions, and there have been gratifying increases in state park budgets. There is, generally, increased recognition in law of public park and recreation services as a primary function of government, evidenced by the more definite trend to consider such services on a parity with other fundamental governmental functions. The court decisions likewise have recognized that park and recreation services are governmental rather than proprietary functions. The selection of areas and their integration into a state-wide coördinated system has been given more definite consideration. This has meant more basic studies in their evaluation and selection and a greater emphasis upon their distribution in order to meet human needs; more attention to careful planning for their development and greater concern for the achievement of individual and social benefits to be derived from their use by the people.

Encouraging as these accomplishments are, it must, nevertheless, be admitted that the problem and the possibilities have, for the country as a whole, been little more than touched. The problem that each State now faces, if it has not already done so, is the establishment of a park authority, adequately financed, wisely empowered, and properly staffed, both with administrators trained and experienced in park and recreational work and with properly qualified technical advisers. There is no other way to carry on the work that has been so generously augmented by funds and services from the Federal Government and there is no other way of guaranteeing the freedom of local ingenuity and creativeness that should govern the development of each state park system. While there are certain general principles that apply to all park work, the individual adaptations of them and of park technique can best be made by the States themselves; otherwise, the state park in California is apt to be the same as the one in Maine.

In emphasizing the necessity of more adequate state park organizations, I believe it is reasonable to urge that, since parks provide a socially and economically profitable form of land use for the country as a whole, individual parks should earn at least a portion of the cost of operation and maintenance. Without going into the question of *how* the charges are to be made, I believe, nevertheless, that fees generally are necessary both for the benefit of the park and for the benefit of the user. Curiously enough, people cherish that for which they pay. And park organizations

can function with greater integrity if they are not on the charity fringes of the budget.

In the early days of the emergency programs we kept asking ourselves:

What are the responsibilities of the local governments?

What are the responsibilities of the state governments?

What is the responsibility of the Federal Government?

In 1934, when the National Park Service was asked by the National Resources Board to prepare a report upon the recreational use of land in the United States, we defined our position as follows:

Supplying facilities for the day-by-day recreational needs of the people is primarily a local responsibility, whether met by municipalities of sufficient population and wealth to supply all the various types of recreation required, or by county or metropolitan park boards which, dealing with the needs of a group of urban and rural communities, make it possible for each of those communities to enjoy such facilities. . . .

Every State has areas either of such high scenic value or of such high value for active recreation, or both, or possessing such interest from the scientific, archeological, or historical standpoint, that their use tends to be state-wide in character. Acquisition of such areas, and their development and operation, appear to be primarily a function of the States. . . .

Taking the Nation as a whole, there are, again, areas of such superlative quality, because of their primeval character or scenic excellence, or historical, archeological or scientific importance, or because of some combination of these factors, that they are objects of national significance. It is the responsibility of the Federal Government to acquire and administer these.

We have seen no reason to change that point of view since it was written in 1934 and we see no reason to change it now.

Working upon that basis, to encourage the assumption of responsibility by the States and to facilitate the approval of park-development projects, we are now devising administrative procedure so that those States with park organizations that meet certain standard requirements may approve and inaugurate their own park ECW projects. Such procedure would, we are sure, be more satisfactory to the States since it would give them greater freedom in developing their park programs and would expedite their work. The Federal Government must, of course, reserve the right to set the organization requirements that the States must meet wherever this phase of the work is to be assumed by them.

Leaving now the subject of state responsibility in providing adequate park organizations, there are other ways in which the future of state parks rests with the States. I refer specifically to (1) the Park, Parkway and Recreational-Area Study that Congress has directed the Secretary of the Interior, through the National Park Service, to conduct as a coöperative undertaking with the States and which is described in this ANNUAL by Ben Thompson; and (2) the standards of development and use of park areas that shall be accepted by the States and defended as they would defend any other right of their people.

The Study, as it now is getting under way, is a vehicle for coöperation

between the Federal Government and the States and their political subdivisions. It should be clearly understood that the National Park Service is not sending its representatives out into the States to inspect them and to tell them what to do. We would not have adequate personnel to conduct such a study by ourselves even if it were desirable to do so. If the Study is to fulfill its desired ends, the assembling of data, their orderly sifting, and the recommendations that shall be based upon them must originate with the States themselves. In that process, our field representatives are available to be of whatever assistance they may.

It is our belief that, as time goes on, there will be no more important vehicle for arousing and coördinating an intelligent public interest in park and recreational problems than will be presented by this joint study. Undoubtedly, the state park systems will be profoundly affected by the part that the States assume in this venture.

Lastly, I take up the subject of standards because they express the vision that must permeate and guide all of the foregoing mechanics and because they must be in the mind of a park administrator first, last, and all the time.

Standards governing the development and use of the areas cannot be stereotyped for all areas. If they are to have any significance, they must express in clearest terms the purposes or uses for which each area is best suited. Specifically, all park areas do not need to be natural museums, at one extreme, or intensively developed playgrounds, at the other. Even more important, they should not be *compromise* areas between the two extremes; that would be destructive of both sets of values. There does not need to be any conflict between the scientifically minded conservationist and the sociologically minded recreational planner. The problems and aims of both groups must be the problems and aims of every park authority. The solution rests in the proper definition of standards for each type of area and its most appropriate uses. We should abhor above all things in park work the tendency to repeat devices everywhere because they have been successfully applied in one or two or a few instances.

In making this statement, I am not unaware that we have made mistakes in the past; that mistakes will be made in the future and that generally the evolution of a park falls far short of the goal it should quickly achieve. But, regardless of such disappointments and defeats, I cannot too strongly urge the point that unless the States, through adequate park authorities, through the Park, Parkway and Recreational-Area Study, through the moulding of public opinion and through legislation, set and maintain the proper standards for their recreational areas, the future of state parks will not be very different from the future of the circus.

One of the finest examples of park planning of which I am aware is the Point Lobos study that is being conducted by the Save-the-Red-



Point Lobos Reserve, the last remaining stand of Monterey Cypress
in its primeval condition



Truck trail bridge, Devil's Den State Park, Arkansas
Courtesy U. S. Department of the Interior



Woodland road in Itasca State Park, Minnesota
Courtesy U. S. Department of the Interior

woods League and the Carnegie Institution of Washington, for the California State Park Commission. In the first published volume of that report, the authors, Drs. Grinnell and Lindsdale, give such a concise statement of the standards that should govern the development and use of that particular area, I should like to quote a few paragraphs.

A State park may be maintained for any one of several justifiable purposes. But the special purpose for which each park is established, and kept, should be clearly understood by all persons directly concerned and responsible for the management of that park. Areas set aside for play, for landscape viewing, or for the broader types of inspiration, may be cared for so as to obtain the greatest utilization possible; but distinction must be made as to the purpose of each particular area and care should be exercised not to confuse, or attempt unwisely to combine, many uses for one small area. . . .

The primary values to be preserved at Point Lobos are those qualities of the area which reveal the continuous adjustments of its constituent elements to naturally changing environmental conditions; one of the conspicuous elements, but not necessarily the most important, is the existence of the cypress grove. The most valuable possession of the State at Point Lobos is the privilege of protecting the undisturbed relationships there existing between the organic and inorganic environment. These relationships constitute the most important element demanding protection of the features which appeal most immediately to visitors. This phase of the Reserve, however, is the one most liable to injury by administrative action. Its preservation depends primarily upon curtailment of human influence on the soil and vegetation, by taking the following precautions:

1. Keeping vehicular travel on designated, improved roadways.
2. Encouraging foot travel on improved trails.
3. Permitting complete freedom for natural processes in recovery and maintenance *everywhere else* than on improved roads and trails. Our observations have impressed us forcibly with the need for preservation of the soil at Point Lobos, *as it is*, if the vegetation and closely dependent animals are to be protected from harmful disturbance. As we see it, the greatest potentiality for damage in the Reserve lies in efforts to improve conditions.

In order to insure that the public will properly conform in behavior to the code of regulations finally adopted, there is needed, of course, adequate warden service. In a preserved area of such extent and located, as it is, on a main artery of travel, one warden is unable to cover the territory. We therefore advise the addition of a person, of special qualification for appreciating the natural values of the Reserve and interpreting these to visitors who are receptive. A further function of such added permanent officer would be to maintain record from season to season and year to year of natural phenomena relating to both the physical and the biological features of the area.

Finally, our purpose in advocating the fostering of consistently natural conditions in this Reserve is to encourage the preservation of all the inherent values to be found there.

Congress has authorized the Secretary of the Interior, through the National Park Service, to cooperate with the States and their political subdivisions in planning and developing public recreational facilities and programs. On the basis that I have attempted to outline this evening, we stand ready to be of whatever assistance we may.

FUTURE DEVELOPMENT AND MAINTENANCE
OF STATE PARKS*

W. G. WEIGLE, Superintendent of Washington State Parks, Seattle, Wash.

IN LAYING plans to establish a state park system, the first work to be done should be a thorough survey of the State so that all areas, publicly or privately owned, having scenic, recreational, historical or other qualities, that should be preserved to the public, could be listed, fully describing their outstanding qualities.

In selecting areas to be used briefly for recreation, many conditions must be considered, some of which are:

1. Ownership of land.
2. Are the topographical features attractive?
3. Is the area free from flood danger?
4. What population does it serve?
5. Cost of providing suitable roads.
6. Distance from a similar recreational area.
7. Ease or difficulty in securing ample sanitary domestic water-supply.
8. Does the area offer attractive bathing facilities?
9. Character of forest cover, and can its natural condition be maintained?
10. Does the area have a bad fire hazard?
11. How large a crowd could be accommodated?
12. Is there room for spacious parking facilities?

In selecting areas on account of their *scenic* attraction we are faced with the problem of determining just what individual feature or combination of features makes an area scenic: a winding, clear unspoiled stream, a lake nestled among the wooded hills, a mountain with precipitous rocky cliffs, a rushing tide through a narrow, rocky, wooded passage, a promontory affording a marvelous view of the surrounding landscape, a tract of large, virgin timber with an undercover of moss, ferns, and shrubs; an open glade showing presence of wildlife, a mountain meadow full of alpine flowers between the patches of snow, or a waterfall in a shady, rocky canyon with quiet pools and dashing rapids with moss and fern-covered banks. These are a few of the features that combine to make a scenic and inspirational area that should be preserved.

Historical sites are frequently designated as state parks. This, without doubt, works out to the advantage of the State in that the State assumes protection; the administration of the historical site can easily be taken care of by the park authorities. But historical sites should not be developed as recreational state parks unless the area adjacent to the point of historical interest contains features that have outstanding recreational value. In such a case the historical value should have first consideration. The State of Washington has several historical sites designated as state parks but none of them are used as playgrounds.

*Condensed from a paper read at the Far West Regional State Park Conference, San Francisco, September 1, 2, 3, 1936.

SIZE OF STATE PARKS

State parks come in many sizes, from a few acres to many thousands of acres. There is usually much to be gained in having large areas. Some of our most active recreational parks have only thirty to forty acres, but such parks are always greatly overcrowded and badly hampered on account of lack of space. In a park of large size there is much more chance to develop the road and trail system whereby crowds may be scattered and the natural conditions of the park protected. Also, a park of large size has the advantage of being a bird and game sanctuary which should be one of the chief considerations in the future state park development. The frequent sight of song-birds and the occasional view of game and game birds adds greatly to the pleasure of the seeker of recreation and is a big factor to inspire and increase public love for the out-of-doors. How we all love to see a deer go bounding across the road, a bear shuffling off into the brush and a ruffed grouse drumming on a log! These and many other bird and animal characteristics may be common in our state parks if they are developed with such things in mind.

DEVELOPMENT OF STATE PARKS

We will doubtless all agree that the first thing to be considered in state park development is a good topographical map and a well-thought-out plan showing just what improvements are contemplated. In state parks where certain areas are dedicated to the use of the public for picnics and other recreational use, it is quite essential that they be provided with certain facilitating structures such as well-defined parking places, roads and trails, latrines, kitchens, stoves, tables, water systems, custodian's houses, garages, storage warehouses, work shops, diving floats and laundries for campers, etc.

The number and size of these facilitating structures will depend upon the character of the park, the number of units developed and the population served.

The topographical features of a park frequently are such that it becomes necessary to regulate the crowds on certain units in order to prevent the destruction of the natural conditions. When a condition of this kind maintains, the trouble may sometimes be eliminated by adjusting the size of the parking facilities so as to balance the accommodations offered in the picnic area.

Nature is seldom improved by the hand of man; it is the beautiful, natural surroundings in the state parks that draw the crowds; therefore, the ingenuity of man is severely taxed to provide roads and trails and facilitating buildings to accommodate thousands of people without making radical changes in the natural makeup of the area. The native trees, shrubs and flowers should in every way be protected so that the beauty of the park will increase rather than diminish.

FACILITIES FOR ENTERTAINMENT

State parks have become popular because they furnish convenient places which supply the public demand for outings. People do not get maximum benefit from outings unless they have the privilege of doing that which gives them the most pleasure. Because of this, it seems reasonable that the demands for the people for various kinds of recreation should be met as nearly as funds and space permit. Bathing is probably the most popular recreation in the state parks; therefore, every effort should be made to promote the best possible facilities for this delightful and health-giving pastime.

Hiking is another delightful pastime that blends vigorous exercise with pleasant surroundings and brings little expense to the park after the original cost of trail construction. The same is true of horseback riding which is popular in many of the parks. Ball games are popular and furnish good clean sport, strenuous exercise, and add very little to the cost of development or maintenance of the park. Tennis is a very popular game, furnishes good clean sport and splendid exercise and is extensively indulged in by the young people. Quoits or horseshoe, while an old game, furnishes a pastime in which anyone can take part; therefore it is popular because of its simplicity. Mt. Spokane State Park, Eastern Washington, has become an all-year playground. This park furnishes ideal skiing conditions and is patronized extensively. Skiing is one of the finest of sports and should be developed in every state park where conditions are favorable.

The above-named games and many others furnish splendid exercise and good clean sport; therefore, if space permits and facilities can be provided, there appears to be no good reason why they should not be permitted in state parks.

Many people who visit the state parks are greatly interested in nature study; therefore the state park of the future should take advantage of this desire by developing museums wherein would be placed on exhibition labeled specimens of all trees, shrubs, flowers, ferns, moss, rocks, etc., found in the park, and in connection with the museum would be established nature trails, some trails with plants labeled, others not labeled, the museum and nature work to be under the supervision of a nature student during the summer months.

ADMINISTRATION

The several States offer many plans of administration and systems of financing state parks, each plan having its good and bad qualities. Many who have given the subject of state park administration much study are favorably inclined to an unsalaried commission of three or five appointed by the Governor or by a committee of three, of which the Governor is chairman; the terms of office of the commissioners should be compara-

tively long and should be staggered so that there is always a carry-over from one administration to another. No form of administration will work out to the best advantage of the parks unless it is constructed so as to positively eliminate politics.

The State of Washington has a very definitely established plan of administration known as the State Park Committee made up of the Secretary of State as Chairman; State Land Commissioner as Secretary; State Treasurer as Treasurer. These three officers are elective and in no way responsible to the Governor except to make an annual report to him. The State of Washington also has a definitely established financial set-up for the support of the state parks consisting of seventy-five per cent of the fines and forfeitures collected from violations of the motor vehicle act outside of incorporated cities and towns. The tendency, however, to arrest for the violation of the motor vehicle act has been on the decline; consequently the fund received for the administration of the state parks is decidedly inadequate.

Under the State Park Committee we have a Superintendent, Assistant Superintendent, Architect and office help. On the most heavily used parks we have a custodian who is employed throughout the year, and during the summer months only on those of minor importance or so located that they can be safely closed during the winter months. The state parks of the future will, without doubt, continue to be developed and maintained by an administrative organization not greatly different from those set up in many of the States at the present time with certain eliminations and additions to meet the needs of the individual case. The tendency of the future will be to eliminate politics, demand the best of technical help and make the higher supervisory positions of a permanent nature.

The State Park Division of the National Park Service has an open field with ample opportunity to render a splendid service to the States by urging the set-up of proper administrative control so as to eliminate politics and provide suitable trained help and reasonable budgets for park development and maintenance.

WATER SUPPLY

One of the things of first consideration in a state park is an ample supply of good water. If good sanitary water can be secured under gravity, even though the original cost may be greater, the advantage is on the side of gravity system. A good well may work out very satisfactorily, but the original cost of the pumping equipment, combined with the continued cost of electric current with heavy cost of maintenance, brings in monthly bills that are usually quite distressing.

DEFACING PARK PROPERTY

Preventing the carving and writing of names on park furniture and buildings is another form of maintenance in state parks that requires the

attention of a custodian at practically every park. Just recently the custodian of one of our parks went to the trouble of erasing the written names and eliminating the carved names to the best of his ability. He then posted signs requesting all persons to refrain from such defacement of park property. The local newspaper aided in the campaign by inserting editorials begging the people to take an active interest to aid in the prevention of this pernicious habit.

CHARGING FOR SERVICE

The Washington State Parks started out on the basis of making everything free and the word "Free" is a very popular term. On account of everything being free, we soon had trouble. Those parks which were quite accessible to centers of population soon became overcrowded with overnight campers, many of whom would remain for several weeks and some for several months. To avoid this congestion, in 1935, we gave three nights free, then a charge of fifty cents per night. This cut down the number more or less, but the undesirables would go to the trouble to leave for one day, then return for an additional three nights free.

We are now, in 1936, charging fifty cents per night for every night. This of course cuts down the number of overnight campers very materially, in fact on some of the more remote parks, more than we like.

On one of the parks with several lakes the trout fishing is exceptionally good so we rent boats for fishing which brings in a revenue of several hundred dollars each season; outside of overnight camping and boat charge, everything is free.

It is believed, however, that the state park of the future will make a small charge for every definite service rendered, such as overnight camping, automobile parking, tennis courts, use of wood, bathhouses, use of boats, etc. Probably the simplest way of handling these charges and accommodations to the people would be to make arrangements with a concessionaire to take care of them in all parks. The concessionaire would also have the privilege of selling ice cream and soft drinks within the park.

Many people are of the opinion that sufficient revenue can be taken in in the parks to pay the cost of maintenance and administration. This may be true in regions of dense populations, but in this western country where the population is small as compared to the east, the attendance is insufficient on some of the parks to much more than pay the cost of collection, and on those parks that have a heavy week-end attendance, there is a very light attendance during the remainder of the week.

NEW CONDITIONS

One of the severest tests to which the management of state parks has been put is to find adequate parking space for the numerous automobiles.

Now they are faced with a new condition which requires space for automobile and trailer. It would seem, however, that the development of the state park is largely for the benefit of the local people rather than for the floating population; therefore, no provision should be made by the state parks of the future to take care of the trailer. Or if provisions are made the charge for accommodations should fully cover the cost of improvements.

The time may come in no distant future that in order to furnish our local people with desirable parking place, provisions will have to be made for a landing field.

In summing up the state park problems, many of them are yet unsolved, but the good that the parks have already done in getting people out in the open is ample to justify the belief that state parks have come to stay, and that funds for their development and maintenance will soon find a place on the State Administration slate as firmly entrenched in the support of the people as that of any other state function.

STATE PARK OPPORTUNITIES IN PENNSYLVANIA*

MARKLEY STEVENSON, Philadelphia, Pa.

WHY should the State assume the duty of providing public parks rather than Federal, county or local governmental agencies? The answer may be itemized:

1. There is no question of supplanting any other type of parks. State parks supplement all other types and serve to complete the circle of outdoor recreation facilities.

2. The very high standard which has been established and maintained with respect to the creation of national parks and which is well expressed in a letter from Charles H. Ramsdell to Frederick Law Olmsted: "The only justification for creating and maintaining a national park is the existence of natural conditions of such grandeur, on such a magnificent scale, or with such unique outstanding importance among all of similar kind throughout the country that the people of other and distant parts of the United States cannot afford to let them be destroyed" probably precludes the establishment of any such areas in Pennsylvania.

3. It often happens that opportunities for the establishment of parks by counties and municipalities are undeveloped or lost due to the limitations of the jurisdiction or the financial resources of these political subdivisions. These conditions may be somewhat mitigated in the case of organized metropolitan areas but in general it may be said that, among other reasons, in view of its greater resources—natural, financial, and administrative—and its ability to transcend the arbitrary boundaries of its subdivisions, thus enabling it to secure complete landscape units, the Commonwealth should assume the responsibility for providing a system of publicly owned state parks.

4. The provision of facilities for public outdoor recreation has ceased to be a local matter. The development of transportation and communication facilities has greatly increased not only the potential but the actual size of the area within which the mass of the population live, work, and move about. Not only are such questions as the consolidation of certain political subdivisions in the interest of economy and efficiency being considered, but grouping of States into regions for their mutual benefit in certain respects is receiving the most careful thought. Since the State is sovereign within its boundaries, state-wide action with regard to an increasing number of public functions, notably parks, appears to be a most logical development of this trend.

Places of Scenic, Historic, Scientific, or Wildlife Interest. Where the intrinsic interest of a place or structure having scenic, historic, scientific, or wildlife value is clearly proved, the desirability of preserving it for the benefit and enjoyment of the people for all time cannot be questioned. Whether an area or structure, the interest in which is derived solely from one of these values, should properly be included in a state park is often questionable and depends largely upon whether sufficient recreational and locational values of the types which a state park should possess are present or may be included within the area. Where this is not the case, it will almost always be best to exclude such areas or

*Condensed from a paper read at the National Conference on State Parks, Swarthmore, Pa., June 10, 11, 12, 1937.

structures from state park classification because, unless it offers opportunities for the often-repeated enjoyment of simple pleasures in an environment essentially natural in character, it is not justified as a state park. The ability of a recreation place to arouse a desire to return frequently to enjoy everything it has to offer is the supreme test of its value.

In this instance scenic value refers to the pleasure derived from an outstanding view, a series of views, a panorama, or from viewing some single object, natural or otherwise; as distinguished from the pleasure derived from a landscape which may or may not include spectacular views. The former may rivet the interest and attention for a short period but one soon tires of looking, and unless there are other substantial recreation values, such places are visited for very brief periods only, and once the view has been seen the visit may not be repeated for years.

In the case of places of historic or scientific interest, this one-visit-will-last-a-lifetime attitude is even more marked and, on the whole, seems justified. In neither is there likely to exist any park value other than, perhaps, a pleasant landscape and often such natural beauty as the latter may possess is seriously damaged by the presence of incongruous monuments, "restorations," particularly in the case of battlefields or other places of military interest. A good rule to follow with regard to such might be stated as: No memorial structure where a simple monument will serve the purpose, no monument where a simple marker will suffice, and no "restorations" or facsimiles where anything else will do or where the authenticity and unique historic or scientific value of such a structure in the particular location cannot be amply justified.

Places in which the wildlife is the sole justifying value, and where this is of such character as to be interesting and at the same time not harmful to the public, and not merely a game refuge or breeding ground, may be preserved for this value alone. Such cases would be rare. Commonly, it will probably be equally satisfactory to the wildlife and to the public if the former is encouraged to inhabit the state parks. In this way each would gain, the wildlife would be completely protected at all times, and the overwhelming proportion of people who visit the state parks for other purposes could not fail to learn to appreciate and enjoy the beauty and value of our wildlife.

The chief criteria for determining what areas should be included in a comprehensive state park system appear to be these:

1. They should possess conspicuous scenic and recreational resources. In view of their great and increasing social value unusual recreational resources may compensate for the absence of conspicuous scenic beauty.

2. They should be characterized by scenic and recreational resources of kinds which are unlikely to be preserved and developed for enjoyment by the public of this and future generations under private ownership, and which are sufficiently distinctive to attract and interest people from distant parts of the State.

3. They should be sufficient in number, extent and character to meet the prospective demands of the people for the kinds of enjoyment which they can provide, and which cannot or will not be supplied by such other means as local parks, county parks, state forests, national parks and forests, and the use of scenic highways.

4. They should be geographically distributed with a view to securing a wide and representative variety of types for the State as a whole, and at the same time making a reasonable assortment of them equitably and easily accessible to the people in each part of the State, notably the large urban and metropolitan populations whose need for them is greater than that of the rural or small-community population. "Equitably accessible" in respect to state parks obviously does not mean that if one community has a state park within half an hour's ride, every other community should have one equally near. A state park system cannot be laid out on that scale of accessibility. It means more nearly that a fair assortment of state parks should be within reach of half a day's travel, or less, by automobile by any considerable body of population.

The resources of Pennsylvania with respect to desirable state park sites are plentiful and varied. In contrast to the monotonous landscape of many parts of the country, the wide range of topography in Pennsylvania presents opportunities for the creation of a state park system which may include typical examples of such widely divergent types of landscape as flat tidal river shores, narrow, steep-sided valleys and mountains, glacial waterfalls and ponds, and Great Lake beaches.

Water, in one or more of its forms, is without doubt the most interesting element in the landscape. It is unquestionably the most highly prized recreational resource. A state park without some usable water feature is at a great disadvantage. Therefore, it follows that wherever possible, state park sites should include water resources in excess of those required for drinking and sanitary purposes. Although Pennsylvania has no ocean frontage, no large lakes (with the exception of two reservoirs), and only a comparatively short frontage on one of the Great Lakes, there are several large and many small rivers and a state-wide network of creeks and small streams, and, particularly in the northeastern part of the State, a very large number of small lakes and ponds, some the natural result of glacial action, some artificial, and some a combination of the two. The potential water resources are ample and pleasantly varied in character. At the same time it is most unfortunate that, as a direct result of the development of industry and the mineral resources of the State which, in turn, have brought about the concentration of population, where state parks are most urgently needed these resources are, generally speaking, most polluted by industrial and mining wastes and sewage. It is probably true that there remain sufficient unpolluted water resources to meet the immediate need, but these are rapidly diminishing and the possibilities in this regard are at present trifling compared with what they would be were the pollution removed from our rivers and streams. Of almost equal importance from the standpoint of their use as a park resource is the prevention of the silting

of the beds of watercourses with the resultant repeated flooding of the surrounding territory at certain times; also the control of streams to maintain a constant minimum flow, to prevent an excessively rapid run-off and a consequent complete disappearance of the stream during the season of the year when it is most valuable as a recreational resource.

Since water resources are of such great value, the problems of pollution removal, flood control and soil-erosion control are closely associated with state parks. The successful solution of any one of these will open many splendid opportunities, while the successful solution of all of them will increase the potential state park land manifold and permit the creation, particularly in certain parts of the State, of parks having much greater scenic and recreational value than is possible under existing conditions.

As, with few exceptions, the preservation or restoration of the natural landscape is of paramount importance in any state park, the question of size demands very careful consideration. State parks may be too large as well as too small. The governing factors in determining the desirable size for a state park appear to be that it shall:

1. Include within its boundaries one or more complete landscape units; for example, the entire basin of a pond or small lake extending to the top of the higher land all around, a section of stream valley extending to the horizon line on each side, a bay or cove in a mountain, in the bank of a large river or on the shore of a large lake.

2. Be possible to exclude all incompatible sights, sounds, and smells, and also public roads.

3. Be capable of being developed for use by large numbers of people and the enjoyment of a wide variety of recreational purposes without interference by one from the other or the destruction of the general effect of a natural environment. Essential to this is the presence of sufficient relatively flat open land to permit the development of service and recreation facilities which require land of this character.

4. Offer sufficient recreational opportunities and attract a sufficient number of visitors to justify the establishment of adequate supervision and maintenance.

5. Not be so large or so developed as to require supervision and maintenance the cost of which will be out of proportion to its social value. The topography of Pennsylvania presents a wide variety of land forms from which to select such park sites. Among these are:

- A. The shores of such large rivers as the Delaware and the Susquehanna.
- B. The round topped hills and gently sloping valleys in the southeastern and southwestern parts of the State.
- C. The steep-sided and sharp-ridged hills and mountains with their narrow or relatively broad valleys extending in a belt running from southwest to northeast across the center of the State.
- D. The plateau and ravine country extending from east to west across the State through its northern half.
- E. The eastern and western glaciated sections with their ponds and small lakes and waterfalls.
- F. The Lake Erie shore.

A complete, or almost complete, forest cover is not only not desirable but is usually undesirable in a state park. Much more to be desired is

a pleasant combination of forest or wooded land and open meadow, pasture or shore line. Such a combination offers an interesting variety and contrast in vegetation, helps to accentuate and make more striking the underlying ground forms, brings out the full values of light and shadow on the ground, presents the best opportunities for certain types of recreation, is essential to the development of certain types of wildlife, and is accepted generally as being ideal park land. Thus it is further emphasized that, while they undoubtedly are capable of being used for certain types of recreation, the state forest lands are not, generally speaking, adapted for state park use.

Since, as has been pointed out, the control of their environment is frequently essential to the fullest preservation of the scenic and recreational resources of state parks, two important means to this end, rural zoning and the control of advertising signs, should receive careful consideration. While these are human rather than natural in character, each looks toward a more rational use of the land and its natural resources and the regulation of objects upon it in the best interest of all the people.

By the establishment of use districts, to mention only one desirable objective, rural zoning may:

1. Prevent the uneconomic use of land unsuitable for agriculture with the disastrous human consequences attendant upon such use.

2. Prevent the uneconomic use of land for residential purposes.

3. Prevent the uneconomic and unnecessary use of land for industrial purposes.

4. Prevent the exploitation of land best adapted to park, forest, or wildlife use, for any other purpose and prevent the parasite use of land in the vicinity of parks.

5. Prevent uneconomic and unnecessary expansion of school, religious, and welfare facilities.

6. Prevent uneconomic and unnecessary development and expansion of transportation and communication facilities.

7. Prevent, in large part, soil erosion through control of watersheds and watercourses.

8. Prevent, in large part, stream pollution and flood damage.

9. Preserve stream flow and purity.

The regulation and control of billboards and other outdoor advertising signs, particularly in the vicinity of parks and parkways, is essential not only as a public safety measure but in order to assure the preservation of one of the greatest values such areas offer, namely, the beauty of the natural landscape.

Thus it is plain that, since the genius of a people is measured by the success with which they control themselves and their environment, this matter of providing a well-considered, carefully selected, and well-designed system of state parks presents a challenge which no State can afford to disregard and which I believe Pennsylvania will accept with enthusiasm.

PARK LEGISLATION IN THE YEAR 2000

J. HORACE McFARLAND

Notes from address to meeting of Pennsylvania Parks Association in conjunction with National Conference on State Parks, at Swarthmore, Pa., June 10, 1937.

NEITHER a Bellamy nor an Isaiah, and being painfully acquainted (as a mere businessman, and worse, as an employer in Pennsylvania) with recent legislative trends, I feel that prognostications are dangerous. Only a few days ago a congressman told me that he had a copy of the first draft of the bill which gave the President \$4,400,000 000 to spend as he thought best in which was included a provision, later fortunately eliminated, that criticism of the plan or of the spending subjected the critic to fine or imprisonment, or both. Who am I, therefore, to take a chance at either punishment in dreaming about Pennsylvania legislation two generations hence?

It is, however, surely safe to hope for such park legislation in Pennsylvania as would give every citizen an opportunity within the easy daylight span of any day to get, as a right, to a state-owned, state-managed, state-maintained park within the confines of this "Penn's Woods."

There will be no disagreement here with the propriety of this dream as it relates to the provision of recreation. But I want particularly to call attention to another and most controlling reason for enlarged park acreage not only in the Keystone State, but in the whole land, in the year 2000.

We eat only as things grow on the land, and things to eat do not grow in any land without water. I want to show that as we increase our forest cover we increase our food basis. This not usual view of forest values is based on a statement by Dr. Raphael Zon, of the Federal Forest Service, published in the magazine *Science*, July 18, 1913. In a detailed and supported statement he discussed "The Relation of Forests in the Atlantic Plain to the Humidity of the Central States and Prairie Region."

Dr. Zon, admittedly a dependable scientist, divides America into three longitudinal climatic zones:

1. The Pacific strip, between latitude 32° to 60°, has the abundant moisture which the winds bring in from the Pacific Ocean. North and south, growth is abundant. Great forests have resulted, including the Big Trees of California. The Sierra and the Cascade ranges form the eastern limit to this first zone, and their heights repel the travel eastward of the Pacific moisture.

2. The mountains and plateaus east of the Sierras and the Cascades to the 100th meridian, passing through North and South Dakota, Nebraska, Kansas, Oklahoma and Texas, form the second region, needing to get along with very much less rainfall than the Coast region. Within this area "the Great American Desert" of the earlier maps

has been artificially watered into productivity—the desert is off the map.

3. The eastern plains and mountains to the Atlantic Ocean form the much larger third region within which we live, move and have our being, and within which most of the food for the whole land is raised, and much of the manufacturing done. It includes the population center of the land.

The life-giving moisture which permits this eastern third of the nation to provide us with food begins, according to Dr. Zon, with the evaporation from the Gulf of Mexico and the Atlantic Ocean, brought to the east by the prevailing southerly winds during the growing season.

But these water surfaces provide but two-ninths of the natural precipitation over this great area. Seven-ninths of the water without which we do not eat comes from the land itself, the rainfall from which is evaporated and deposited and re-evaporated again and again, so that it has been figured that a drop of water from the Atlantic Ocean does its beneficent duty eleven times before it is lost over the dry western plains. This tremendous fact is not at all fully realized by those whom this rainfall keeps alive. In Dr. Zon's monumental presentation it is supported by records and observations gathered from the data accumulated by the Department of Agriculture. There is no mere argumentative assumption—conclusions are drawn from the facts.

Now this evaporation which thus permits us to use the life-giving water over and over again is from three surfaces, broadly speaking. It arises from bodies of water, cultivated land, and forest.

Here comes in another of Dr. Zon's carefully buttressed conclusions. He finds that the forest evaporates more water than any other vegetative cover, and much more than water itself, a lake surface, indeed, being third in ability to transfer water by evaporation to the atmosphere and thus to feed the clouds which bring us the rain farther on.

The conclusions of Dr. Zon I am thus again restating are buttressed, as I have said, by precise figures, diagrams and maps. I bring them to attention here because they have a yet unrealized relation to the value of the parks and forests we are discussing.

Let us barely touch upon the scientific facts involved, in confirmation. Certain Austrian measurements of the amount of water transpired by forests, make known to us that one acre of oak forest absorbed in one day from 2,227 to 2,672 gallons of water per acre, corresponding to a rainfall ranging between two and four inches per month. All this water is given off by transpiration from the leaves, and not through physical evaporation from the twigs. It is the "coolness" of the forest we love that puts the moisture in the air that we must have if our crops are to prosper and we are to continue to eat.

For this reason, then, broadly speaking, our forests, large or small, can justly be called "the oceans of the continent."

There is thus a very large and adequate life-preserving reason for

the forests and parks we must establish and maintain not only in Pennsylvania but in all of eastern America. There would be no Dust Bowl to distress us, no famines and floods, if we could restore the fertility of America by the evaporative, transpiring, life-giving green cover which God put here. And this green salvation can be maintained without depriving us of any land we need for farm or factory, but rather in fuller provision of the recreational opportunity now coming to be recognized as essential to industrial production.

It ought not to take us two more generations to get around to recognizing the necessity for such legislation as in the year 2000 would assure to us the orderly and intelligent continuance of this sustaining greenery. We do muddle through eventually, but we suffer and cause others to suffer because we are muddling without real knowledge and design.

It is hardly a dream, therefore, to suggest that by the year 2000 we will of sheer necessity have Pennsylvania as green to the sky as it was when it came in 1692 into the hands of William Penn. He found 62 per cent of it forested. Without knowing anything at all about the scientific reasons, he wrote of the need for one acre in six of continuing forest. Now we have less than one acre in thirty.

Pennsylvania is happy in having within one control its forests and its parks. Am I therefore too sanguine in hoping that long before the year 2000 we shall have stopped muddling and fiddling and piffing about the greenness of our State, and have provided for its extension and its continuance as a life-saving measure?

As I dare to vision it, we would have adequate, accessible park places all over the State. We would have them not only because they were good to have for recreation, but because they were necessary to have in order that we might continue to eat. We will have made accessible and made known the presently almost unrealized scenic resources of this Commonwealth, so valuable for patriotism, recreation and profit. We may even have reached the common sense of such a sane rearrangement of state subdivision as would put certain counties now retrograding in population and tax-production into a new and production class, based on forest and park establishment and maintenance rather than on the lumbering destruction of the precious forest cover.

Other factors enter into the hopeful practicability of a sane legislative programme for the year 2000 or much earlier. The cost of adequate park treatment, life-building, health-restoring, and applying as well to communities as to the State and the nation, would be much less than half our annual hospital bill. It would be trifling if translated into airplanes and battleships, aimed at destroying life and property.

Perhaps when we date into the twenty-first century, we in "Christian" America will have begun to reach into the prophecy many of us give at least lip-allegiance to, and will be spending more time and money in preserving and bettering life than in devising more ingenious and effec-

tive means for destroying it. The whole world in these 1937 days is war-mad or armament-crazy, as we talk peace and good will while we spend billions for that defense or offense we assume to be "preparedness." Every increase in park returns, be they local, county, state or national, is away from this silly wickedness.

While it is asserted that we are heading toward a lower ratio of population increase, we may be reasonably sure that the year 2000 will not find us retrograding. We need more and more to provide employment for our citizens in their increasing leisure hours. It was an earlier Governor of Pennsylvania who sententiously wrote: "The wrongs against society are committed by our people not in their hours of work, but in their hours of leisure, and the responsibility lies not wholly with the people who perform these unfortunate acts, but with the people who have not been wise enough to realize that the fundamental business of the community at large is to see to it that it becomes increasingly easy for the people to do right and increasingly hard for them to do wrong." The 40-hour week demands more than double the recreational provision casually planned a generation ago. In this State of Pennsylvania we have 215 people for each square mile—we are more than five times as crowded as the whole nation at 41 to the mile. The economic forests do not serve as fully for recreation as do such state parks as we are developing. In one county of decreasing year-round population, Sullivan, one developed wild "Whirl's End" attracts 5,000 visitors every summer Sunday. A near-by "High Knob" has been showing the glory of Pennsylvania to 2,600 motorists each seventh day.

How will we reach these state parks in the year 2000? Who knows? Seemingly the whole State can go awheel on any day, with one automobile for every five inhabitants—a fair comparison with all Europe at one gas wagon for every 169 persons!

A thoughtful citizen recently remarked to me the growing desire of urban population for the sort of healthful and peaceful recreation afforded by what we call "the wild." Said he, "The mountain and stream-coursed valleys are not increasing, but the population that more and more desires to use them grows in number and in time to travel. Commercial interests will grasp these opportunities, not often to the public welfare, if recreation is not arranged by the people themselves through their governmental agencies. In state parks order is easily maintained, health is readily conserved."

So in the year 2000 we will need well-developed state parks, including those of natural forest development, for good order, for food, for recreation, for profit. I have faith to believe that the necessary legislation will be enacted. We will hang back, to be sure, but we won't sleep!

HIGHWAYS AND ROADSIDES

A Review of Progress in Roadside Development

THOMAS H. MacDONALD, Chief, Bureau of Public Roads,
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ROADSIDE improvement in the year 1936 is a continuation of past development and a progression to future development. The best one can do in studying the year's program is to take note of those policies that have proved effective in the field so that certain minimum safe standards can be maintained by all the States. This set of standards has not yet crystallized, being always open to improvement, but it will at least do away with the worst dangers and abuses and scars in present roadside conditions.

Twenty-five years ago there were only 640 thousand motor vehicles in the United States; today there are 28 million. Increase in the speed of the vehicles has been as marked as the increase in number. Great improvements have been made in the methods of road construction and thousands of miles have been built, but highway engineers are still behind in their efforts to keep pace with the number and speed of vehicles.

Pioneer road builders were mainly concerned to keep cars out of the mud. They built roads for speeds of 20 and 30 miles an hour. As greater comfort in traveling has been demanded and as the speed of vehicles has increased, a great mileage of road has been built according to more modern standards; and much has been done to remedy the mistakes of the early road builders who could not foresee that highway transportation would grow, in a few years, from pigmy to giant proportions. The stupendous development of American road building is difficult to realize. This development is by no means reaching its culmination—we are still under pressure to provide the essential elements that go to make broad, safe highways, and changing conditions make it necessary constantly to broaden our conception of the modern highway.

In addition to the utilitarian necessities of road construction, the States and the Nation as a whole have become conscious of the esthetic values of landscape development of the highways. Not only to the cultured and artistic, but also to the every-day man in the street, beautiful highways become a rest and a relaxation after the bustle and grime of the day's work. A landscape is lovely equally to those who ride in a flivver or a Rolls Royce. States and their businessmen are recognizing with surprise that good and beautiful highways constitute a business asset and a permanent income. In the year 1930-31, Michigan alone estimated 271 million dollars of tourist income. Road traffic and purchasing increase relatively to the inducements offered by each road. A well-constructed, safe and beautiful highway pays for itself eventually.

Equally to the surprise of many, the landscaping of roads is proving

utilitarian in the maintenance of roads. Gentle, instead of steep banks and ditches edging the roads, rounded shoulders, sodded areas, bush snow barriers, native plants, as will be further demonstrated, are as useful and helpful in maintenance as they are conducive to landscape beauty.

One of the outstanding principles of roadside improvement that has become firmly established is what might be called the naturalistic viewpoint. Instead of advocating formal garden arrangements for rural areas, which are costly both in inception and in maintenance, the present effort is to preserve the natural landscape unspoiled in so far as is possible. This is not only cheaper, as the natural landscape is self-supporting, but it affords more restful beauty to the rapidly passing motorist who cannot take in small garden details with a passing glance. Mass groupings, meadow softness, and solemn forests can be breathed in instinctively despite a windy speed. Moreover, simplicity of landscape minimizes mental confusion and distraction from driving. For harmony of line, roadways should follow the regular lay of the land as far as is consistent with safety and utilitarian requirements. The scars of road building should be healed over naturally as soon as possible.

Certain changes in the natural background must occur, it is true; ample sight distances must be arranged for safety; trees and foliage must be thinned, cut, or planted, to graduate down artistically to the roadbed. But even in the matter of planting, native greenery is supplied in sod and tree so that the countryside may return to nature, unspoiled by a rude scar, but tied only by a neat ribbon of road running from State to State.

Width of Roads and Rights-of-Way. On main highways, a right-of-way not less than 150 feet wide is desirable, both for possible future widening of the roadway and for roadside development. Such a strip free of buildings and commercial encroachment is very necessary if we are to allow for future expansion. The present evils of crowded city streets are due to lack of foresight on these matters. Attention should also be called to the fact that land prices are lower now than they will be later in a continually ascending scale.

In roadside development itself, projects are averaging about 5 miles in length, though 10 or 15 miles can be undertaken in some places. We seek to place them where they are seen and enjoyed by the greatest number of people, and hence main highways near large cities are the most preferable locations.

On heavily traveled highways built for two lanes of traffic, it is desirable to make the paved surface 22 feet wide, and to place gravel, stone, or slag shoulders, bituminous treated, having a width of 8 feet. When more than two lanes are required, four-lane divided highways are rapidly becoming standard, and the central dividing parking is both a thing of beauty and a necessary and effective device for the promotion of safety.



Entrance to a roadside park in Connecticut.
Courtesy U. S. Bureau of Public Roads



Planting on center strip of six-lane highway in New Jersey
Courtesy U. S. Bureau of Public Roads



Divided roadway newly planted around a bridge in New Castle County, Delaware
Photograph from Delaware State Highway Department



Natural beauty retained along Florida roadside
Photograph from Florida State Highway Department

Erosion. An important problem in road construction and maintenance is that of erosion. The key to the problem lies in working with nature instead of against her, the latter being an expensive, hopeless, and continuous warfare. For the deeper nature is scarred, the more will natural forces seek to heal that scar, resulting in a constant friction between highway engineers and the grim old dame. The leveling instinct in nature is immutable. If, however, natural forces are taken into account and even used as a means of resistance, friction ceases and success begins.

Instead of the former steep cut-and-fill slopes in roadways of the past, the present plan is to use shallow ditches and rounded slopes and shoulders. These are not only safer than the grand canyons of the past, in which a car turned turtle when shoved or elbowed off the road, but they allow for natural sodding and drainage, as a preventive of erosion.

Erosion may be seen in many forms—siltng, gullyng, sloughng, sliding, wind or snow erosion. Steep cuts do not take kindly to sodding, seeding, or other preventives, because of uneven water-supply. Moreover, they offer supreme opportunities for roughng from the various types of erosion. Therefore, a gradient of 3 to 1, or preferably 4 to 1, should be used on earth slopes to offset this natural tendency. Native ground-covers should be used as much as possible in protective planting of banks; permanent shrub snow barriers should be set back on the slopes; and a bituminous mixture put on the shoulders to guard against erosion by water and melting snow. Grass or earth shoulders should never be used where there is much traffic. Adequate ditch drainage and cross drainage must always be provided, it goes without saying. Rounded curbs, rather than the old-style curbs with a vertical face, provide a safer transition from roadbed to shoulder.

An accompanying result of the above practical measures against erosion is beautifying of the landscape through remaining in close harmony with nature. Rounded cuts and gentle slopes fit into the normal terrain; they will not be worn down for they are already smoothed over. Native planting merges them into the background. Living evergreen snow barriers become part of the landscape—not a recrudescence—a fence to be rotted and leveled by time, and to be put up again for the same recurring process. Eventually it will be seen that that which most nearly approximates nature will be the most enduring in construction and efficiency; and that the most perfectly constructed bridge or highway must contain the innate qualities of harmony and symmetry.

Planting. Plant analysis should be made when any roadside is to be improved. Plant types native to the soil and area can thus be ascertained and this knowledge utilized in subsequent seeding, sodding and planting. Foreign or exotic plants are discouraged as being both expensive and problematical in their results. Plant diseases or weather to which they are not acclimated may wipe them out. Likewise, esthetically, foreign plants may not harmonize with the natural landscape. Native sod, vines,

and low ground-covers are recommended, as well as trees and shrubs. Grass seed cannot be standardized. Three or more native formulas should be kept at hand for various needs. For economy, noxious weeds should be cut before they seed as the most positive means for permanent control.

Nursery plants, having well-developed root-systems, are often more successful than virgin stock. But much economy can be effected by the saving of native stock while clearing the roadway. Small trees and shrubs in the roadbed are transplanted at once. Fine specimens of trees on the roadside should be clearly marked by a sign that will indicate to every workman that they are to be left undisturbed. Sometimes temporary highway nurseries are established to care for collected native stock until wanted. Topsoil should be carefully put aside for roadside planting after the rough grading is completed. Early preparation can be made for the later seasonal planting. These measures not only conserve resources and reduce maintenance, but they contribute to a beautiful native landscape and a successful whole.

Safety. Those highways that have improved roadsides are inherently safer than those where the thought of the designer has not extended beyond the side ditches. Many of the elements of a broad plan of roadside improvement definitely contribute to lessening the number of accidents, while other factors may lessen the severity of accidents that do occur.

Many of our roadside projects have footpaths for pedestrians at a safe distance from the path of vehicles. On those projects that do not have them, the broad rights-of-way provide space where they can be placed in the future as they inevitably must be on many of our roads. Two out of every five people killed by motor vehicles are pedestrians. This is one kind of accident for which a definite remedy is available.

The wide shoulders characteristic of highways with improved roadsides and the turnouts for bus stops that are possible on wide rights-of-way prevent many accidents that might be caused by the stopping of vehicles in the stream of traffic.

Gentle side slopes, rounded shoulders, and shallow ditches will not prevent many accidents but they will lessen the severity of those that result in cars leaving the roadway. However, they do prevent some. Narrow shoulders and deep ditches and slopes that cannot be crossed in an emergency without disastrous consequences produce in almost every driver a tendency to veer off toward the center of the road. The result is a lessening of the effective width of roadway.

A foremost thought of highway officials today is safety.

Conveniences for Tourists Must Be Provided. Roadways are for the passengers, not for the vehicles. A great many people get healthful recreation and enjoyment wherever attractions are provided; and it is a sound public policy to provide those attractions that are reasonable in cost. Parks, picnic grounds, lookouts, wayside springs and fireplaces,

and anything else which contributes to happiness and comfort along the road are completely justified in themselves and they also add to state income. The people do need education as to the proper upkeep of these public utilities. Neatness and cleanness are encouraged by refuse barrels, handy water taps, and carefully kept rest rooms.

Lookouts at scenic locations are not only esthetic in their reaction, but are a matter of safety. For the people are bound to look anyhow, and they might better do so, drawn off the traffic lane where congestion endangers themselves and others. The old method of driving and looking simultaneously, especially from a mountain-top, did fearful and wonderful things.

The Growth of American Tourist Travel. The importance of the roads for the purpose of tourist travel can roughly be shown by the position in which several States rank tourist trade; Maine ranks it second only to her entire agricultural output; California places it next in importance to her great petroleum industry; in Michigan, the center of the automobile industry, it ranks second; in Wisconsin, its value as a producer of revenue is exceeded only by that of the dairy industry; and in Florida, during the 1935-36 season, it is estimated to have represented many times the value of the entire citrus fruit crop. As Shakespeare put it, this "must give us pause."

A number of States have made surveys of out-of-state automobile traffic; eleven of these were western States. New England has instituted a four-year campaign for tourist trade. This was inaugurated by business interests of the States, but was later taken over by their governments, in view of its value to the citizens. In the country as a whole in 1930, it has been estimated that \$50,000,000 was spent in advertising travel objectives, the funds being provided by transportation agencies, States, local communities, hotels, regional associations, and various business interests.

Where traveling for pleasure, the average number of persons per car is found to be about three; and the average number of days in a trip, to be 15, or undoubtedly the usual two-week vacation, plus the Sundays at either end. Where a special climate is sought, the stay is necessarily longer. Transients, of course, are often merely passing through a State. At present, not only hotels and lodging houses, but also tourist cabins and camp sites have been provided. Trailers carry their own lodging facilities, and trailer parks are growing.

Tourists may go anywhere in this large and interesting country. Therefore, the States and sections which offer the most inducements in the way of useful and beautiful roadside improvement will naturally get the tourist and trade.

Education and Public Relations. The directors in this new field of roadside development should be landscape architects, professional men who are familiar with engineering, architecture, and landscape agriculture. There are nine member schools in the Association of Professional

Schools of Landscape Architecture and about as many more offering authentic courses in landscape architecture. There is no State that cannot afford the services of a well-trained man to direct this work.

The position of landscape architect should be filled by a man qualified to meet and deal with any public group that may be uninformed or misinformed, and with highway engineers who are quick to evaluate professional ability. He should be given the benefit of travel and observation of successful projects, and he himself should constitute an extensive inspection service.

Concerning public relations, high-quality work is the best means of educating the public to the value of roadside development. The designer in charge of each State should see that illustrated articles and news stories appear in the Sunday press, distributed to all, and in as many popular and technical magazines as possible. Handsome photographs and well-written articles go far in this enterprise.

Federal Funds for Roadsides. The Federal Government has actively encouraged roadside improvement and for some years has required that roadside work be done in each State with the funds it administers. The rules and regulations applying to funds available for improvement of the Federal-aid system authorize the Chief of the Bureau of Public Roads to prescribe the extent to which roadside improvement shall be undertaken. The States are expected to assign at least one per cent of each annual authorization to this work. A number of States are spending considerably more than one per cent, just how much it is difficult to state, since many of the most important features of roadside improvement are so closely interwoven with the highway itself that it is difficult to separate them from roadway costs.

Roadside development in its broadest sense is being done on a large mileage of road in national parks, national forests, and in other Federal areas. There is now a long list of outstanding scenic routes in the western States and each year there are notable additions to the list.

In the East, current work will bring to completion all but a short section of the Skyline Drive in Virginia. At the same time this route is being extended to the Great Smoky Mountains National Park in North Carolina and Tennessee by the Blue Ridge Parkway, 460 miles in length.

Roadside improvement now has a firm foothold in all classes of construction. Every engineer responsible for locating and planning highways has been acquainted with sound principles of improvement. The methods that have been generally adopted appear to have been well chosen with few of the mistakes that so often characterize development in a new field.

With the National Government taking such an enthusiastic interest in landscape developing of highways as an integral part of construction engineering, and with the States and the people themselves aiding more and more, we are gradually approaching the ideal.

Objects and Methods of the State-Wide Highway Planning Surveys*

H. S. FAIRBANK, Chief, Division of Information, Bureau of Public Roads,
Department of Agriculture

WITHIN the year we have seen most of the state highway departments take advantage of the 1½ per cent provision of the Hayden-Cartwright Act, to gather what we conceived to be much-needed factual information, as a basis for future highway planning.

It was made clear that the planning surveys were to include in their scope the whole rural highway system and its principal urban connections. They were to consist of a variety of related investigations, including a physical inventory of the existing highway facilities and a close study of highway finances, so planned as to supply all of the facts needed for intelligent highway planning. They were not to concern themselves with highways as the facilities of highway transportation and with highway transportation as a department of a larger transportation system. They were to seek further to trace out the trends that would permit a reasonable estimate to be formed of the ways and the degrees in which these facts may be altered by new economic and social forces now at work upon them.

Why were these investigations thought to be needed? Because it was recognized that we stand at a critical juncture in the development of highways and highway transportation in the United States.

We began building a highway system for a small but rapidly increasing traffic of motor vehicles. We came early to our first and most important highway policy—the policy of the restriction of principal effort to limited intercity systems, that is expressed in the selection of the state highway systems and the Federal-aid highway system. From the moment of selection of these limited systems there was at once a demand and a growing need for the improvement of every part of them—a demand that state and Federal agencies have been working ever since to satisfy. The rate at which they have worked has been determined by the tax revenues annually available, accelerated in some measure by the issuance of bonds.

To attain their appointed end, state and Federal agencies have built as much as they could at a standard consistent with the accommodation of immediate needs, and so more quickly spread a degree of improvement over the whole mileage of the selected systems, returning as funds became available to lift to higher standards sections previously improved upon which growing needs required further improvement.

This was the second great principle of our past highway planning.

*Condensed from a paper presented at the 22d Annual Convention of the American Association of State Highway Officials, San Francisco, December 8, 1936.

By it we have come by now to the point where, with unimportant exceptions, the wholly unimproved gaps in the selected main highway systems have been closed. By no other course could we so quickly have reached this closure that permits a traveler to go from end to end of the country continuously upon roads to some degree improved.

But the task of improving the main roads is by no means finished. While state and Federal governments have been bringing the selected primary highway system to its present state, three thousand county governments and a larger number of lesser agencies have been working upon the far larger mileage of other roads outside of the selected system. Little has been known with accuracy of this vast mileage of other roads. Even their total extent has been in nearly every State unknown and to this day—a few States again excepted—no reasonably accurate maps exist upon which they all may be seen.

Upon this vast uncounted, uncharted mileage, thousands of generally short-termed, relatively untrained local officials, each within his own narrow territorial limits, and largely without conscious continuing plan or coördination, have been carrying on an effort toward improvement.

There is reason to believe that the improved portions of this "other" mileage are generally the more useful portions. A large but unknown portion remains wholly unimproved. There is a public demand for continued extension of improvement "to get the farmer out of the mud," and it is a demand that cannot be denied or properly complied with in the absence of an adequate knowledge of the condition and utility of the remaining unimproved roads.

Considering the financial means by which this progress has been made possible, we find that it was begun with funds derived in large part from taxes on property. By an early decision the motor vehicle license fees in most States were dedicated to the selected state highway systems. As the motor fees grew with increase in their rates and in the numbers of vehicles taxed, the property taxes levied for the support of the selected roads were reduced. Gasoline taxes were imposed to raise further revenue and steadily increased in rate, and when these with the license fees became sufficient for purposes of the main roads, the remaining property taxes levied for such roads were abolished in most States.

Continued growth of motor vehicle registration and further increase in the rates of the two taxes, especially those on gasoline, brought in larger sums, and at first small, then larger, amounts were taken in many States away from the main roads and used, first for the local rural roads and then in some States for city streets, replacing for these purposes the property taxes from which they had earlier had their sole support.

With the approach of the depression a revolt against property taxes reached, in several States, the objective of complete abandonment for rural road purposes, thus throwing the whole cost of all roads upon the

support of motor vehicle taxes. In all States the yield of property taxes greatly declined and local road revenues suffered accordingly.

As the depression deepened, the need of revenue for other than highway purposes inspired a raid upon the special motor vehicle revenues to obtain funds for a variety of purposes, and the serious depletion of essential highway revenue was prevented, after some losses had been sustained, only by the threat of the Hayden-Cartwright Act.

But it also brought to the highways an unexpected increase of support from Federal tax sources, an increase that has probably at least compensated and, perhaps, more than offset the losses of withdrawn property taxes and diverted motor vehicle revenue.

Motivated by employment necessities, these Federal emergency funds have gone in ample amounts to the primary highways, and—a new thing under the sun—to the secondary and feeder roads or, as some prefer to call them, the farm-to-market roads. With a practicable measure of reasoned control they have gone through the Bureau of Public Roads and the state highway departments to a considerable mileage of secondary and feeder roads. With a freer hand they have been dispensed by the Federal relief agencies to a larger, but less carefully selected mileage. In both ways they have sustained an activity of local road improvement the burden of which has not been directly felt by the immediate beneficiaries, and, so doing, they have unquestionably stimulated the demand for a wider and accelerated improvement of such roads.

At this moment the question of future support of the road program is involved in serious doubt. Property taxes once gone will be difficult to get back. Motor vehicle license fees and gasoline taxes are again increasing, but there is evidence of a gathering of serious opposition to further increase in the rates of such taxes, especially of gasoline taxes.

Of the Federal contributions also, though they still continue at higher than past normal levels, it must also be assumed that there is much doubt in the absence of a more definite commitment of policy than any at present recorded. In this case the doubt is raised only by indecision as to the propriety and need of the Federal participation.

The partitionment of administrative responsibility between the Federal, state and local governments, long regarded as fixed, has been thrown into question by recent trends. At one end we have seen the local responsibility in several States yielded in its entirety to the state government, and everywhere questioned as to its sufficiency to meet the modern test. At the other we have seen the Federal Government in emergency taking on the local burdens. To what extent are these the evidences of lasting changes; to what extent will they prove to be mere temporary adjustments to a passing condition?

We hear with increasing frequency the suggestion of Federal assumption of outright responsibility for a Federal system of highways; and in

the extension of certain parkways we see a practical accomplishment of a similar fact in embryo. How far is it wise to go along that line?

In the regulation and taxation of road use we have come upon questions also—stubborn questions; questions warmly debated, yet unanswered; and unanswered mainly because of a lack of dependable factual information. A highway traffic, decreasingly limited by state borders, is hampered in its proper flow by irrationally variable state regulatory laws, the products of uncoördinated past legislative response to problems, dimly understood at the time and since materially altered. In a traffic at first largely personal there has developed an increasing volume of good movement. Into a movement of vehicles carrying only the persons and goods of their owners has come a growing element of common carriers and contract carriers for hire. Motor trucks are spoken of and taxed in terms of tonnage capacity ratings that are known to bear no definite relation to the loads actually carried. Various sizes and classes of vehicles are taxed according to schedules that have no rational basis of any sort; and the effort to find an agreed and reasonable basis is again defeated by lack of essential factual knowledge, as to the effects of the various sizes upon the highways and their consequent responsibility for road cost, and as to a variety of other circumstances and conditions of their several uses.

There were, however, still hamlets clustering about dilapidated brookside mills. There were riverside towns that slumbered by their rotting wharves, dreaming of steamboat days, long past. There were pioneer settlements remaining where they were formed at places, for one reason or another, relatively secure from attack by wild Indians. And there were backwaters of humanity up mountain hollows, on coastal sandbars, and at other remote places that existed in an economic and social world of their own, as different from our present world as was that of the past from which their progenitors departed.

While we have been building roads to fit this existing pattern, the motor vehicles by which our roads are traveled have been pressing with a new kind of force upon that pattern, with tendency to change it greatly. The force that these vehicles generate is unlike that of the railroads; a diffusive, not a concentrative, force. What the railroads have tended to draw together, the motor vehicles now work to scatter apart.

And, more recently, this scatter force of the motor vehicles has been joined by another that works in the same direction—the force of electric power, widely distributed. Unquestionably, the merging of these two diffusive forces has reversed the resultant trend of our economic and social movement. Most emphatically it raises new questions for the highway planner and builder that must have most careful study.

We hear daily of resettlement projects, revised land uses. It behooves us to recognize in these the evidences of the altered trend and to shape our highway plans to aid, rather than resist the irresistible movement. We do not want to build roads where future reservoirs will be. We would not

knowingly build a road toward a section soon to be depopulated. Yet there are immediate possibilities that we will do exactly these things unless we take heed of the direction of the new forces now busily at work.

In the inventory, which is the first stage of the studies, we are for the first time determining by actual measurement the true extent of our highway facilities, their extent and, in detail, their present condition; on the main roads we are locating and recording the existing inadequate conditions of sight distance, curvature and grade that limit the service value of these roads. We are determining the exact physical condition existing at every railroad-highway grade crossing in rural territory, the angles and grades of highway approach and the visible distance along the railway from points on the highway. The traffic surveys will show the density of highway traffic at each crossing, and later, by agreement already reached with the Association of American Railroads, a record to be supplied by the railroad companies of the number, character, and time of train passages over each crossing, and of the number of collisions, injuries and fatalities that have occurred, and the amount of damage claims paid, at each during the last five-year period.

We are also determining the location in rural territory of all farm-houses and homes, all churches, schools, hotels, stores, public institutions, mills, mines, and places of all kinds whatsoever that are the present origins and destinations of highway traffic. We are discovering what roads are used for the carriage of the mails, for the transportation of children to school, and as the routes of common carrier buses and trucks. We are also determining, for mapping purposes, the location of all railroads, the prescribed routes of all regular air lines, the courses and extents of all navigable and all actually navigated streams, and as to each respectively the location of their stations, ports, and wharves.

All these determined facts of the inventory will be classified in numerous significant statistical tables, and will also be charted on large-scale maps, the first with such wealth of economic detail ever to be attempted. As a basis of future highway planning these maps will be invaluable, and not only for highway planning but for other public planning purposes.

To the results of the inventory, showing the location and present condition of all existing rural roads, and the amount and character of human settlement and industry upon them, there will be joined the outcome of the traffic counts, which will present a composite picture of the flow of traffic over the whole system, and will show the relative present traffic use of each and every section.

Other studies will indicate the weight of the vehicles found on all parts of the highway system, with bearing upon problems of road design and the taxation and regulation of vehicles and traffic.

By one type of origin-and-destination study we aim to settle questions of the prevailing range of movement, whether relatively local or more far reaching, over various classes of highways—the primary or main high-

ways, the secondary or feeder highways, the tertiary or land access roads.

At favorable locations where the traffic is presented with alternate free and toll facilities, we shall seek, by noting the conditions of choice of the shorter and more expensive toll route over the longer or more tedious free route, to measure the value that highway users of various classes put upon savings of time, distance, and vexatious delay.

We shall seek to indicate proper answers to recognized problems of highway routing, as local as questions of city by-passing and as broad as the question of eventual substitution of direct, inter-regional routes for the meandering routes that are the consequence of intercity growth.

By studies of the commodities carried by trucks and of the origins and destinations and trip-distances of trucks and buses, and private passenger cars, we shall throw light on questions of the competition existing between the highway carriers, both private and public, and railroad and other transportation facilities.

By studies of the speed of highway traffic and of particular classes of vehicles, especially trucks, under various highway conditions, we shall attempt to single out causes of highway congestion in order that they may be corrected by future design of the road system and of the vehicles. We need a careful and intimate analysis of highway accidents in relation to the time, place, and other conditions of their occurrence. These analyses, so important to a determination of accident-preventive measures, including revision of highway facilities, must await, in the interest of reliability, the legal prescription of compulsory accident reporting. It is to be hoped that each of the state legislatures soon to convene will be urged to add such a requirement to the traffic code.

To the inventory and traffic studies the group of financial investigations adds the third major department of the planning surveys. Their most important objective is the estimation of the probably future gross financial resources of the State and all its parts, available for the sustaining of a maximum highway investment. This cannot be achieved from any but an all-inclusive view of every available highway tax resource, national, state, and local, including those of the municipalities for streets.

The year's work should be regarded as the launching of a continuing planning function within each state highway department, a function to discover and revise, perfect and keep current the many precise facts of all sorts that will be continuously the essential guides of a wise and efficient highway administration in the future. Suspend that active function now, and in a year or two the value of the work now done will be lost.

The 1½ per cent provision has been retained in the Federal law for the fiscal years 1938 and 1939. It should remain as a permanent fixture in the law, possibly with some enlargement; and no State should forego the opportunity it affords for intelligent planning of its highway-improvement functions.

What Progress in Roadside Control?

ELIZABETH B. LAWTON, Chairman, National Roadside Council

MORE and more States during the past fifteen years have sought to curb the billboard nuisance by some form of tax and setback legislation. What has been accomplished? Do the results indicate that a satisfactory solution of the billboard problem can be reached through state regulations?

The experience of several States shows that we can eliminate the "snipe signs" by requiring a state permit for each sign and an annual permit fee. The fee does not have to be large to discourage these promiscuous tin and cloth signs tacked to trees, fences and barns. Even California's small fee of only 25 cents per snipe, plus the nuisance of applying for a separate permit for each sign, is in most cases effective.

Experience in Connecticut and Massachusetts, the two States leading in billboard control, shows that a state permit for each sign, plus an adequate permit fee *and setback*, will also eliminate the small signboards which are erected on their own props. This, however, does not apply to signs connected with roadside stands and filling stations. Connecticut's minimum permit fee of \$3, plus her setback of 15 feet from the right-of-way, has eliminated most of the small boards. A few, put out by national signboard companies, still remain and pay the fee. But even these disappear when you cross the state line into Massachusetts where *the setback is 50 feet* and the fee \$4. Few small signs remain effective when forced back 50 feet from the right-of-way line.

The state regulations, so far as they affect the small signs in Massachusetts, have been well enforced for several years (the famous billboard injunction protecting from enforcement only the organized billboard companies erecting the large boards) and as a result no State is today so free from the small independent signs (not connected with roadside stations) as is Massachusetts. Even the old signs painted on barns have been painted out by the State, and two years ago Massachusetts made the proud boast that no barn within her borders carried advertising. Unfortunately the full effect of the Massachusetts cleanup of small signs has been largely obscured by the prevalence of the large boards and by the messy condition of her roadside stands which are permitted to carry unlimited signs on and within 200 feet of the building.

So much for the possibility of controlling the snipes and small signs. When it comes to any effective restriction of the large billboard, where can we find it? Certainly not in Connecticut where the large boards of the organized billboard industry assault the traveler along every heavily traveled road, standing out all the more prominently because of the cleanup of the small signs around them.

It is possible that Massachusetts may yet give us a demonstration

of effective restrictions on the large boards. For the first time since her regulations were adopted thirteen years ago, she is now starting a full enforcement. The large billboards, protected during the long Court battle over the Massachusetts billboard cases, must now conform to the setbacks of 100 to 300 feet from the right-of-way line, which have been upheld by the Supreme Court of the State. When this enforcement has been completed we may find that the most effective state regulation of billboards is to be secured by an increase not in the tax but in the setback. It is also probable that a drastic setback, since it can be based on safety, may be more easily secured than a prohibitive tax.

However, the door to regulation through taxation is wide open so far as the legality of the method is concerned. As Mr. Albert S. Bard points out:

That taxation is a legitimate method of repression is emphasized not only by the comment of Justice Holmes with respect to outdoor advertising in the St. Louis Poster Advertising Company case, but has received fresh emphasis in the recent decision of the United States Supreme Court in the Great Atlantic and Pacific Tea Company chain store tax case, where it is explicitly stated that fees may be exacted for the purpose of discouraging a business and that taxation may be made "the implement of the exercise of the state's police power."

Another distinct problem, and a serious one, is presented by the signs on the roadside place of business. Have we any indication that these too may be controlled? After all, it is rather hopeless to expect clean and attractive highways if every mile or so we must pass a filling station or a roadside stand plastered with signs both on the building and from 200 to 300 feet on either side.

In Massachusetts, and elsewhere, the state billboard regulations do not apply to signs on the place of business or within 200 feet therefrom provided these signs advertise the business therein conducted. At the present time, the billboard men are seeking to evade further the Massachusetts regulations by interpreting this to mean signs advertising *any product sold* at the place of business. Under this interpretation a Wrigley Gum billboard could stand without permit, fee or setback anywhere within 200 feet of a building where Wrigley Gum is sold. This interpretation is now contested in the Massachusetts courts.

Evidently if signs on or near the place of business are to be exempt from regulation, the exemption must be carefully worded to include only signs which advertise the general character of the business, not the specific products sold. Otherwise the exemption may go far to defeat the purpose of the law.

Still another danger lurks in this phase of the problem. The billboard industry seeks to widen not only the interpretation of the exemption but also the physical area of the unrestricted zone. In Virginia, for example, the Coca Cola people urged this year the introduction of a bill exempting from regulation all signs within *300 yards* of any roadside



An unzoned strip of U. S. Route 1 in Connecticut—a typical roadside shum
Courtesy *Roadside Bulletin*



Another section of U. S. Route 1 zoned by the town of Greenwich
Courtesy *Roadside Bulletin*



Snipe signs may be banished by requiring a permit and fee for each sign
Courtesy *Roadside Bulletin*



Such independent small signs are eliminated by the Massachusetts fee of \$4
and the setback of 50 feet
Courtesy *Roadside Bulletin*

place of business. The billboards would thus secure an unrestricted zone over one-third of a mile long wherever there was a filling station or food stand.

In California the outdoor advertising act unfortunately exempts from most of its regulations all signs used "to advertise the business conducted or services rendered or *the goods produced or sold* upon the property upon which such advertising is placed." The new bill sponsored by the leading billboard company of the West and already passed by both Houses, specifies that such signs may stand anywhere within 400 feet from the point where the goods are sold, thus creating a free zone of 800 feet around every roadside stand, but, fortunately, the bill was pocket vetoed by the Governor early in July.

But must the signs on the place of business be wholly exempt from regulation? There is today a hopeful tendency to limit such exemptions. The State of Maine passed a billboard law in 1935 in which only two signs free from tax and permit requirements were allowed for each place of business, neither sign to be over 100 square feet in area or more than 200 feet from the building. Additional signs must obtain a permit and pay the fee. Unfortunately, an amendment this year allows each stand to have 10 free signs within 300 feet of the building, their total area not to exceed 250 square feet. In New York State in the conservation law which now prohibits signs within 500 feet of the boundaries of state parks and parkways, unless by special consent of the regional state park commission, an exception is made in favor of "signs erected or maintained upon property in connection with a business conducted thereon, provided such signs have an area of not more than 24 square feet, do not extend more than 15 feet above ground level, and are placed on the fronts of buildings."

To sum up the accomplishment of present billboard laws, we have proof that we can by state permit, fee and setback, eliminate snipes and small signboards, and can restrict signs on the place of business. And it is probable that after a few months we shall have a demonstration in Massachusetts of the ability of the State by means of adequate setbacks to check to a marked degree the large billboards outside of business centers.

The American Planning and Civic Association has offered a tentative plan to seek more complete roadside control through the division of our highways and their abutting lands into rural and business zones:

To exclude all business and industrial structures and uses, including advertising structures, from residential and rural districts. To accomplish this end the State Highway Commission is given power to regulate the use of land abutting on state highways and within 500 feet therefrom, a strip of land 1000 feet wide, aptly designated as "the transportation corridor." Anyone desiring to use land fronting on a state highway for business must secure a permit from the State Highway Commission.

The definitions of rural district and business district offered in this plan are admittedly not perfect but are offered for criticism and further study. It is an extremely difficult matter to frame such definitions to meet all conditions. The danger is that they may be framed too loosely and give away the gains already won in the long billboard battle.

We believe the best basis for a criticism of such plans to be a study of the three basic principles on which rests any satisfactory regulation of outdoor advertising:

(1) There should be no advertising signs along rural highways. (No billboards on the landscape!)

(2) All advertising signs should be confined to business centers. (No signs in residence districts!)

(3) When, in zoning rural highways, small commercial zones are created at needed intervals, these zones should admit only those forms of business which are needed by the traveler (such as gas, oil and food). Advertising signs should be excluded.

Any plan which fails to guard these three principles is not only of questionable value, but is likely to prove a serious detriment to the cause.

True highway zoning, enacted as a part of county zoning, offers several very successful demonstrations in California, all developed within the last four years. In these ordinances outdoor advertising is not permitted except in the business centers of built-up communities. In the small business zones created along rural highways to meet the actual needs of the traveler no advertising signs are allowed, except on the place of business.

Mr. Hugh R. Pomeroy of San Francisco, Adviser in City and County Planning, is responsible for much of the progress which California has made in this recent type of zoning. Writing in the *Roadside Bulletin* of June, 1937, Mr. Pomeroy justifies the use of the highway system as an entity for the proper application of zoning in these words:

In dealing with highway frontage we are not dealing with ordinary business property, wherein the business use of the frontage is a direct result of the shopping needs of the adjacent community. We are dealing with the highway as a distinct unit in the functional structure of the County or regional area, and the regulations imposed must take their form and purpose from a conception of the highway as such rather than because it happens to pass through some local community en route. Otherwise marginal control along the highway becomes an incident of the zoning of particular towns through which the highway passes, resulting in only occasional or "spotty" control. This is of little interest to the tourist and to the local traveler over the through highway. These are not concerned with the highway as it intermittently becomes a part of or associated with local street systems, but as a unit from start to destination. Thus, in relation to a comprehensive land use plan, the highway system may be considered as an entity and, thus considered, the control of its margins becomes a justifiable object for the application of the police power in the public interest, which is involved in the unity and the character of the highway and of the highway system as a whole.

Highway zoning in California not only limits the uses of frontage property but in eight counties there is also supervision over the appear-

ance of roadside buildings. Sketches showing the appearance of the building must be submitted with the application for a permit. Changes may be required by the Planning Commission before the permit is granted. Mr. Pomeroy states:

While it is doubtful to what extent such a discretionary power, based primarily on esthetic considerations, would be upheld by the courts, it has actually worked out in practice with excellent results. The opportunity for discussion with the applicant generally makes it possible to secure considerable improvement in plans which would otherwise result in unattractive buildings. Ordinarily, the results have not been spectacular, but in the counties which have established such architectural supervision there has been a marked improvement in the design of roadside buildings and the quality of plans as originally submitted is constantly improving.

One of the most interesting examples of California's highway zoning is that on the Skyline Boulevard in San Mateo County, in effect since 1934. For approximately 40 miles this boulevard lies along the crest of the Santa Cruz Mountains and offers spectacular views over San Francisco Bay on the east and the Pacific Ocean on the west. Quoting again from Mr. Pomeroy:

For much of its length it passes through the redwood forests which characterize these mountains. An indiscriminate scattering of business uses along the length of this highway would seriously impair its scenic and recreational character. The zoning, therefore, establishes seven small business districts at properly located intervals. One of these, at a point where an adjacent community has developed up to Skyline Boulevard, is of the "neighborhood business" classification of urban zoning. The others are classified as "limited highway frontage" districts. In them, in addition to residential and agricultural uses, there are permitted hotels, multiple dwellings and a few limited types of retail business, upon the securing of a use permit in each case. The granting of the permit is optional (by the County Board of Supervisors after investigation by the County Planning Commission) and rigid control is exercised over what is permitted, its location with respect to traffic on the highway, and its appearance. This includes strict limitation of the display of advertising signs, and no signs are permitted apart from places of business. The long stretches between these business districts are zoned for residential (one-family) and agricultural uses, prohibiting all multiple residential and business uses, including outdoor advertising. Where the highway zoning is not contiguous to the zoning of adjacent communities (which is the case for the greater part of its length) the zoned strip is one thousand feet wide each side of the highway. The business districts are tiny islands in this zoned belt.

A second example of unusual interest is the zoning of the Bayshore Highway in Santa Clara County, "the most important traffic thoroughfare south from San Francisco," passing through an area "not particularly scenic but for the most part attractive rural territory." The ordinance adopted in 1933 applied to a strip 300 feet wide on each side of the highway. Later "when a large billboard was erected 302 feet from the highway" this width was increased to 500 feet and a revision now under consideration will probably make it 600 feet. This zoned strip is classi-

fied as a "general highway frontage" district and is open throughout its length to certain permitted forms of business. These do not include outdoor advertising or auto-wrecking yards. This zoning now applies to the entire 18 miles of the highway within the county, and the 15 miles already constructed, Mr. Pomeroy states, have been kept entirely free from billboards, yet this is one of the most heavily traveled roads in the State.

The great difficulty in securing roadside control whatever the method used, lies in overcoming the tremendous power of the billboard barons in our legislatures. When we see the stranglehold they have secured on the American countryside and in the American halls of legislation, we are appalled.

In California, we are informed that the leading billboard company of the West has fought planning and zoning at every step. The company sponsored this year a bill providing that billboards must be admitted wherever any other forms of business are allowed. All California county zoning ordinances do admit billboards to the true commercial districts of cities and towns but exclude them from the small business zones created along the rural highways solely to meet the needs of the traveler.

Under the California bill which did not become a law, a zoning ordinance could prohibit a tenement house, a junk-yard, a slaughter yard, or a factory but never a billboard. The billboards were to stand in a highly preferred class with no restrictions. The county might zone against other commercial enterprises in a scenic area but if in that area they permitted a service station or a lunch room for the convenience of the public, they could not prohibit billboards. If this bill had become law, the very real protection which county zoning has built up to protect the natural beauty of California, "the only effective means yet devised," California claims, "for adequate control of outdoor advertising along the open roadside," would have been largely destroyed.

It is the same story in every State which attempts to pass any billboard regulations. In the recent battle for a billboard law in Michigan, we are told, the billboard men had their own special lobbyist supported by three of the most powerful lobbyists in the State representing the manufacturers, labor, and petroleum. Nevertheless, greatly to the credit of Michigan and to the encouragement of all, the bill to regulate this nuisance failed in the Senate by only three votes.

In spite of the political and moneyed power of the billboard industry there is no question that little by little we are gaining ground in this battle to rescue the American countryside from misappropriation by the billboard and other commercial interests. The rapid development of state planning and the growing interest in county and state zoning are full of promise for more rapid progress in the future. But the fundamental job is still, and for some time will be, a job of education, to arouse and vocalize the resentment of the public against the unjustifiable confiscation of their tremendous highway investment.

**METROPOLITAN AND COUNTY
PLANNING**

Where City and County Meet*

EARLE S. DRAPER, Director of Land Planning and Housing,
Tennessee Valley Authority

PLANNING is no panacea, *no substitute* for good citizenship. An educated and enlightened citizenry can accomplish more without benefit of planning or zoning authority than can an apathetic city loaded to the gills with state enabling powers to control civic growth and development. Public opinion is still our greatest force and most important energizer of activity.

Except where local issues or prejudices have temporarily obscured and prevented the exercise of good judgment, there are but few instances where an educated and enlightened city has recognized a vital need yet failed to provide itself with the tools by which that need could be satisfied. There are many such tools available: adequate powers of management, budget control, facilities for the coöperation of the city with county, state, and regional authorities and with the Federal Government, and, *not least* among them, opportunity—usually through planning and zoning authority—for foresighted provision for expected growth and sane adjustment.

These powers are available, but it is not enough for the city to secure them for use merely within the city limits or even to extend some of them to an encircling strip of land three, or perhaps five, miles without the city limits. You have to go back pretty far in history to find cities or towns possessing a high measure of self-containment. In medieval times, some cities did succeed in living smugly within their own walls. But even then the feudal barons had to collect their wherewithal from the *surrounding countryside*. Today, the city and its surrounding area are interdependent. But that is not all. As a unit, city and trade area function in a vast pattern interwoven with social, economic and political ties. They cannot afford to profit—the city and its surrounding area—one at the expense of the other. They must for their mutual salvation fit themselves into the larger scheme. The city and its surroundings today rise or fall together. Hence, it behooves them to work together. They have the tools. Just as some are of recent innovation—a definite response to broader conceptions—others will be invented as the needs arise. It is time to start swinging them!

We have learned a lot about planning these past few years. Perhaps the most vital lesson has been that of the very real and present inter-relationship in all activity of State to larger region to nation. The problems of the National Resources Committee, of the TVA, of State Planning Boards have certainly made that apparent. No less important is that web of inter-relationships between city, county, and State.

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

Planning has a great deal to do in determining whether that web of inter-relationships shall become a snare or an orderly, working pattern.

City planning studies must be broadened. The economic and physical basis for data collection must be extended. Metropolitan districts, trade areas, counties must form the basis for studies. Judgments should not be formed without consideration of the important relationships of the city to its hinterland—the county and trade area—and to States and Federal bodies whose activities in various fields have a direct relationship to civic activities.

The Census Bureau tells us that in 1930 the urban percentage of the total population for the United States was 56.2 per cent, while in 1920 it was 51.4 per cent. The Census further reports that for the decade 1920–1930 the urban growth was 27 per cent as compared to 4.7 per cent rural growth.

These figures must be broken down, however, to realize their true significances. It must be remembered that the Census arbitrarily defines “urban” as incorporated places having 2,500 or more inhabitants. This means that much of the urban growth was due to growth of crossroad communities to an “urban” status and to extension of city limits to include suburbs. Some of the growth was due merely to a new change of definition with respect to townships. Particularly significant are the growth figures when analyzed with respect to metropolitan districts. Thompson and Whelpton found that rural areas within metropolitan districts increased in population during this same decade (1920–1930) at a rate of 54.8 per cent, while the small cities (suburbs and satellites of 2,500 to 5,000) increased at a rate of 68.8 per cent. So the greatest increases—and here is an unmistakable trend—actually have taken place not in the large cities themselves but in their outskirts.

This trend toward the diffusion of the city will continue. In most instances slum clearance should bring about reduction of housing density in the heart of the cities as well as conversion to other types of urban land use. In the residential-building program which is now gathering momentum, I venture to say that residential increases in the suburbs and satellite communities of the large cities will outnumber the residential increases in the densely or comfortably built-up sections of the cities at a ratio of 100 to 1.

Perhaps diffusion is too kind a word for the process. In bursting its bounds, the city actually has “sprawled” and made the countryside ugly from the standpoint of esthetics, uneconomic from the standpoint of its demands for services, and of doubtful social value in its present form. There has been *much trend*, but *little direction*!

Tracing the influence of transportation on such diffusion during the past several generations, we come first to the railroad. After all, the railroad didn't do such a bad job. From the time in 1830 when the B&O made its first run from Baltimore to Ellicott City and for the next 75

years that the railroad invaded the countryside, it maintained a right-of-way; it kept people off; it allowed no rights to adjacent land; it provided underpasses and overpasses for men and animals (where forced to); and it developed the interior of the country. True, it aided the growth of our key cities and towns, and it concentrated industrial activity and residential growth, but by and large it left the countryside unspoiled. Along came the automobile and good roads with their unquestioned benefits to mobility and activity to spread the scars of the city almost overnight throughout the country.

With the good that the auto did come a lot of bad! A bewildered Nation has never caught up. So far we have been powerless to control this hydra-gadged monster as an instrument of death and destruction. The three-year period 1923-1925 was long after the days of Oscar Wilde's epigrams, the first Winton automobile. We had some of the makings of civilization even at that late date in motor transportation. But automobile fatalities have been ever mounting until in 1936 we had 38,500 deaths from this source—an increase of 94 per cent from the period 1923-25. Along with death, the slums of the city rode into the countryside. Only now, with our feeble attempts to control roadsides and to determine suitable land use, have we started to apply some semblance of direction to this haphazard movement, some measures to protect our countryside from economic and esthetic despoliation.

My point is that in planning for the economic stability and social benefits that should come from the city structure, this planning must derive as much from a study of conditions outside the city limits as within the cities themselves. To apply needed directional measures, we must know the trends and the physical and economic conditions in which they are taking place. The yarn ball of the city has unrolled and the fibers have spread into the country. Take the matter of land use. Most cities of 50,000 or over have within their trade areas a number of smaller cities and towns that look to the larger city for leadership and guidance. It is important to the life-blood of the dominant city that these smaller communities and the intervening rural areas make wise use of their land. The special interests of the area—whether they be agriculture, mining, manufacturing or tourism—must be considered in every planning move that the "big" city makes. The city should be as jealous of the welfare of its satellite communities as is a hen of her chicks!

Within the city much that can be done is in the realm of correctives, changes to fit developments of modern life. Without the city and beyond the immediate suburbs lie areas of countryside, in many areas largely unspoiled except for questionable roadside developments. Rural uses dominate; the tempo is peaceful and serene. Yet overnight this can become a sprawling area of subdivisions, ugly industrial development, denuded forests. Ill-considered, loosely directed development can ruin a countryside in short order.

Here is opportunity for, and need of, directional measures. The basic trend of diffusion is taking place, and will likely continue. A rough calculation has been made that in order for unemployment to drop to the 1929 level, goods and services produced would have to reach a point 20 per cent higher than that in 1929. This will happen when our economic house is in order. As there seems to be some evidence of this taking place, the city and its countryside should begin preparation for expansion and development. Working together, sane direction can be given to changing land uses in the area.

Let's get down to concrete examples. The city affects the use of land in its neighboring rural communities in several ways. On the one hand, the city affords a ready market for farm products and affords employment opportunities to rural people. On the other hand, the people of the city go to the rural communities for rural residences, for parks, for hunting and fishing areas, to get water and power, and to purchase summer-home sites. These are inter-relationships with which planning must be concerned. They govern wise use of land. For instance, a county highway may make an ordinary farm area into a potentially good dairy district, or may open up residential possibilities for an urban population. Thus does a county highway become a directional measure involving urban-rural relationships. Thus, too, do county highway planning, land-use planning and city planning inter-relate. There is opportunity and need for a get-together.

Let's take another example: land use in our suburbs. The people of our cities must be aroused to the dangers of unwise and uncontrolled suburban land use. A city of 100,000 population and occupying approximately 25 square miles of area should be actively interested in its entire trade area, and violently concerned with developments in land use within 15 to 25 miles of its city limits. A report on the Baltimore-Washington-Annapolis Area (not yet published), in the formulation of which several planning bodies and other agencies coöperated, makes the problem of land use within that area very vivid. The report points out that many people moved from the city to be close to more or less open country. But it is quite likely that continued development will cause a filling-in of the present open spaces between communities, so that there will ensue a fused urban blanket development and the original purpose of the suburbs will be thus defeated. This filling-in process is quite apt to be accompanied by scattered clusters of development that are too small to have adequate community services. There is a definite need to guide each development in a more orderly and acceptable manner. With the pressure of public opinion behind such a plan, the tools with which to do this job can be found if they do not already exist.

This backing the planning fraternity must seek for a score of other activities. Many of our problems are so big and involved that they need a united opinion to overcome them. We are working with inter-

relationships because that is the stuff the functions and forms of society are made of. That is the reason I have delayed so long in speaking directly on my topic, "Where City Meets County." I have attempted to show that there is really no sharp dividing line; that it is almost impossible, and well-nigh futile, to say generally: "Here is where *you* stop; here is where *you* begin." The inter-relationships are too many and too complex for such a simple delineation.

But these problems must be tackled. There must be some sort of bulwark from which we can begin our attack. The city is of necessity interested in the county; the county likewise is of necessity interested in the city. The city may well be located on the border of a county and be equally interested in several counties. These were the sorts of points that faced the Tennessee State Planning Commission when it began to establish a planning framework within which to attack its problems. The method finally adopted by Tennessee seems most logical. County regional planning commissions were set up in the counties having the leading urban centers such as Shelby (Memphis) and Hamilton (Chattanooga). Another commission was set up in the northeastern part of the State to cover the several counties and the trade areas of several smaller urban centers; another for the trade area of Nashville, the state capital. These Area Commissions are responsible to the State Planning Commission, which, in turn, works with the National Resources Committee. This setup recognizes the vital relationships existent between such focal centers as cities and their trade areas which may spread over several counties. The trade area concept is valuable in city planning if only for the fact that it emphasizes the city not as an independent unit but as a functional focus of a multiple-center region. In so doing, this concept leads to a better understanding of the city itself and a more intelligent disposal of its problems.

Such an arrangement as I have described seems, as I say, logical. To the captious, to those enamored of precise classification and delineation, this arrangement seems to invite a good deal of conflict. That to me is one of its virtues. When conflicts are presented and aired, they can be ironed out. When the city and its county or its trade area clash, it is the signal for coöperative action. There is a need for ironing out a problem of inter-relationship. One acting without the other can achieve some control, some planning direction. But they must all function together if their work is to benefit all. While there are county lines and counties, we must work in reference to them. We must adapt somewhat to existing conditions, existing frameworks for action. We can't plan effectively in a vacuum.

Where do city and county meet? They meet all the way!

Monroe County, an Urban Area*

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MONROE COUNTY, about 670 square miles in area, bordering on Lake Ontario in Western Central New York, lies in the junction of the Genesee Valley and the Lake Ontario Plain. Prior to 1821, the territory now known as Monroe County was contained in parts of two counties, Ontario and Genesee. The Village of Rochester, the actual center of trade and industry, was divided by the county line. A concerted movement by the Rochesterians resulted in the formation of Monroe County (named in honor of the President, James Monroe) on February 23, 1821. Rochester was made the county seat. The county as now constituted consists of the City of Rochester, nineteen towns (townships) and ten incorporated villages.

Monroe County has an urban population of approximately 361,000, and a rural population of 63,000. Of this so-called rural population, approximately 12,000 are *rurban*. I prefer to use the term "rurban" for "urban-rural" areas.

The soil, climate and topography of rural Monroe County lends itself to intensive and profitable agricultural pursuits. Monroe County is the leading county of New York State in value of farm products. In 1932 and 1933 the U. S. Bureau of Chemistry and Soils classified 32 soil series consisting of 114 phases and types. The new soils map is now being published at the scale of one inch equals 2,000 feet. Along the shore line of Lake Ontario is a sloping lacustrine plain particularly suited for the cultivation of fruit; the middle tablelands are adapted to the production of general farm and cash crops. To the south, to the county line, rolling hills provide pasture for dairy cattle. In 1935 the acreage and production of wheat was largest of any county in the State; however, apples, cherries, and other tree fruits give the greatest financial return to the farmers. Over one-half million trees produce apples of the finest flavor. Other major crops grown are potatoes, cabbage and those for canning. Of the 5,000 farms operated in 1935, 77.8 per cent were by owners, 20.8 per cent by tenants and 1.4 per cent by managers.

In the City of Rochester and its environs quality products, such as photographic supplies, chemicals, scientific and optical instruments, clothing, electrical, laundry and dental equipment, railroad specialties, and machine tools are manufactured.

Monroe County has 382 miles of state highways and 1,104 miles of county and town roads, 95 per cent of which mileage is improved; is serviced by five railroads, the Barge Canal, the Port of Rochester on Lake Ontario, and a modern municipal airport.

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

There are five assembly, two state senatorial, parts of 2 congressional, 342 voting, 185 school, and 434 special improvement districts. The City of Rochester is governed by a mayor and 9 councilmen and employs a City Manager. The County at large is governed by a Board of Supervisors (43 in number), who in 1936 employed a County Manager.

Planning in Monroe County is organized as a Division of the Department of Public Works, with a Director responsible to the Director of Public Works and the County Manager. There is no Planning Board. The term "regional" is included in the name of the Division, as required under the original legislation which authorized county planning boards. The planning procedure used by the Monroe County Regional Planning Board, now the Division of Regional Planning, was early established on a deductive rather than on an inductive basis. Each phase of the work in the Division has been coöperative, in that no planning work has been undertaken without the support of town and county officers, and in nearly all cases with consulting services supplied by the state or Federal Governments.

The original program for planning in Monroe County was laid down in a series of studies developed for the Monroe County Park Commission in 1927 two years prior to the creation of the Monroe County Regional Planning Board. The program has been continued with but few changes, made to meet new conditions and new needs which have arisen.

With the creation of the Planning Board, the program was more fully developed. The topographical and aerial maps were made and foundations were laid for the making of soil surveys and economic studies. Early in 1932, under a county work relief program, persons were assigned to the County Planning Board to assist in advancing and developing the planning studies. During the early days of work relief and CWA, it was necessary in many cases to adapt the program to meet the type of personnel available. We are fortunate under WPA to have assigned competent technical, professional and clerical personnel. Coöperation of the County Board of Supervisors, the County Manager and all county and town officers has greatly simplified a very difficult task. Recently the planning officials and building inspectors of the various towns met with the Director and staff of the Division of Regional Planning and worked out the first steps for closer coöperation in planning and zoning.

It was early recognized that in order to do effective planning it was necessary to have trained personnel. Since trained persons were not available from the relief rolls (and I doubt if they could have been procured from Civil Service or elsewhere) it was necessary to educate them as to the work to be done, train them in the details of procedure and methodology involved, acquaint them with the objectives of the program and the application of results. This procedure is based upon the premise that education is mightier than legislation.

The major problem to be faced in the Monroe County Planning Program was the necessity for the study of the needs and conditions of old subdivisions in special districts, bonded for public improvements and with large and increasing tax delinquencies and the control of the future subdivision of land in order to prevent as far as practicable, a re-occurrence of the conditions which might again lead to economic blight.

In the "rurban" areas, much attention is being given to the control of subdivisions and the guiding of land into the use to which it is best adapted. This required information as to soil productivity, soil percolation ability, ground-water supply, sewage disposal, housing trends and traffic conditions.

In the rural areas, land use including reforestation, soil erosion control, and the conservation of ground water and wildlife are of prime importance. No attempt toward rural zoning is anticipated, as it is evident that but a small portion of the land of Monroe County needs to be zoned permanently out of agricultural use.

Monroe County as an urban area has urban-rural, rural and soil conservation problems, which are so closely interrelated that the discussion of one phase involves the problems of the others. The scope of activities of the County Planning unit does not include any of the incorporated area of the City of Rochester, but deals exclusively with problems beyond the city's physical limits.

Beginning about 1923, the New York State Legislature enacted statutes permitting the development of unincorporated areas through the establishment of special improvement districts. Under this legislation special district boards were permitted to construct water lines, sewer systems and streets, and pay for them with funds realized from bonds sold on the faith and credit of the town. To meet the required annual payments of principal and interest on its several improvement district bond issues, the town assesses each parcel benefited for its pro rata share of the cost, payable in annual instalments. Under the New York State Laws, if a town fails to collect its taxes, the County Treasurer must advance to the town that portion of the levy necessary for town purposes. This has brought about a condition whereby the County is now paying for sewers, water and street improvements constructed in the areas adjacent to the City of Rochester, because of the default by the owners of vacant lots in the payment of their taxes and assessments. During the period beginning 1930, and continuing through to 1936, the County has advanced to five urban towns approximately six and one-half millions of dollars in payment of taxes and assessments on about 17,000 vacant lots in approximately 100 subdivisions, serviced with water, sewers and/or pavements.

The work of the Division of Regional Planning includes studies which take into consideration the events which have led to present conditions,

so as to evolve a program which will permit the economic rehabilitation of these prematurely subdivided areas. The County Manager has created a special committee on foreclosures, and that committee, using much of our data, is now foreclosing the most desirable of the delinquent properties. As the lots are foreclosed, it will be necessary to redraft the areas so as to bring about better physical relations among the many independent subdivisions and special improvement districts. This is "corrective planning."

The analysis of present needs and conditions provides a basis for the making of future plans to guide the development of land into the use to which it is best adapted. This is our most important task . . . preventative planning.

In our attack on these problems we follow active rather than passive tactics and have deployed our forces along two major lines:

1. The control of the filing of subdivision maps with the County Clerk.
2. The requirement of evidence of a potable water supply and an adequate disposal of sewage.

In 1931, the Board of Supervisors by resolution required that all maps submitted to the County Clerk for record must have the approval of the County Planning Unit. This resolution requires that all surveys must have reasonable closure and the lines must be monumented. Such maps must have the approval of the Town Planning Boards so as to check their compliance with town zoning ordinances and street layout. In order to assist property owners in submitting maps to proper officials, this procedure is being coördinated by the organization of the town planning officials, who not only coöperate, but demand that we also furnish basic material to aid in the solution of their problems.

Under Section 89 of the State Health Law, enacted by the Legislature in 1933, all subdivision maps involving ten or more lots must have the approval of the State Department of Health before filing with the County Clerk. Section 334 of the Real Property Law requires that before offering lots in subdivisions for sale, maps must be filed with the County Clerk. A new Article of the Real Property Law provides that when vacant lots are offered for sale on the instalment basis, the operator must register with the Secretary of State. These state laws are enforced in Monroe County through the coöperation of town planning officials, the resident engineer of the State Department of Health and the Directors of the County Division of Sanitation and of Regional Planning.

Proposals have been made to the various Town and Village Boards of Health suggesting that they require the approval of the town health unit for the installation of individual septic tanks and the use of private water sources so as to prevent the pollution of surface and ground waters, and to insure a safe source of potable water for domestic purposes. Two of the towns have included these requirements for obtaining building permits

and the indications are that within the next few months we will have uniform subdivision codes as a result of the fusion of the principles of health and zoning ordinances.

There are many other physical, economic and social problems which enter into the planning and zoning of urban areas adjacent to the city to which we are giving considerable attention.

Some months ago we received questionnaires from the Urbanism Study Section of the National Resources Committee, asking for information relative to the character and status of urban lands. It was impossible for us, at that time, to answer but a few of the questions. In the near future we expect to have, as by-products of our research, all of the essential data necessary to complete the questionnaires.

We also received an inquiry relative to the status of properties in blighted areas, and the suggestion that studies might be made of the relation of the assessed valuation of land compared to total valuation. In the course of our regular studies we have accumulated the data necessary to further investigate this problem and have included such analysis in our 1938 work program.

In 1932, in order to determine the habits and trends of commuters, we made a house-to-house canvass in the urban and rural areas. We found commuters in 27 per cent of the homes. The results of this survey were analyzed by Leland B. Tate and published by Cornell University Agricultural Experiment Station, under the title of "Rural Homes of City Workers and the Urban-Rural Migration."

The rural planning program provides for the reforestation of lands of low productivity and subject to erosion, so that Monroe County through the conservation of its productive soils shall continue as the leading agricultural county of New York State.

In 1932, using the new U.S.G.S. maps (scale—1" equals 2,000 feet, with contour intervals of 5 feet); the aerial mosaic (1" equals 1,000 feet); the new soil maps (1" equals 2,000 feet), we made a series of five maps of the Irondequoit watershed.

1. The drainage basin.
2. Slopes in excess of $4\frac{1}{2}$ per cent.
3. Soils of low natural productivity.
4. Areas in woods.
5. A composite of these four maps so as to show soils of low productivity not wooded and subject to erosion.

Using the new assessment maps the lands were segregated according to ownership. A cooperative agreement was worked out with the State Department of Conservation whereby the State would furnish the Division of Planning with trees for distribution to land owners, who could procure trees without charge if planted on areas requiring treatment. Under the original program one million trees were to be provided by the State Department of Conservation, but this quota has since been

increased to include sufficient trees to plant 7,000 acres of poor soils subject to erosion. We now have an experimental nursery and expect to produce deciduous trees to supplement the conifers supplied by the State. One hundred ten land owners in the Irondequoit Creek watershed are now cooperating in this conservation program.

County zoning has not received popular support in Monroe County, as we feel that in a county such as ours the towns should have that responsibility. The Division of Regional Planning coordinates the work of the several towns and assists them in making decisions.

County Planning in California*

WALLACE C. PENFIELD, County Planning and Public Works Engineer,
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COUNTY planning has had eight years of experience in California. It has definitely passed the period of experimental pioneering and is now generally accepted as a legitimate and proper function of county government. The degree of acceptance of planning in counties has depended in a large part upon the local recognition of planning problems and availability of means for their solution.

In rapidly growing, urban Los Angeles County, planning has reached its most effective stage. In the 11 other counties where urban development is a significant factor, planning receives generous official and citizen support. The majority of counties of predominantly rural character have no planning commissions because of their slow rate of change and lack of local comprehension of regional or large scale planning programs.

Experience in California has shown that county planning has a technique which differs from that of city planning. It is apparent that the original emphasis upon the city type of master plan was somewhat misplaced. The value of a master plan varies directly with the rapidity of growth and inversely with the size of the area. It has been proved that principles and standards are more important in the planning work of large, slowly developing areas than the ordinary city planning technique which depends upon rapid change and restricted area for its effectiveness.

The original California County Planning Act of 1929 was based largely on past experience in city planning. The law designated the preparation of a "master" plan as the chief function of a planning commission. The master plan as defined, was composed of the major highway plan, recreation and park plan, districting or zoning plan, transit plan and group building plan, each to be adopted officially and enforced by law.

All provisions of the act applied to both cities and counties. Both city and county commissions, therefore, operate under the same law.

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

When the act was drawn, the concept of county planning was quite nebulous and the law consequently reflects the idea that county planning is but an application of the principles of urban planning of a larger scale.

Through a separate "map filing act," control of land subdivision was given to city and county planning commissions in their respective areas. Provision was also made for cooperative action on subdivision maps in the environs of incorporated cities.

In the eight years since these laws were passed half of the 58 counties in California have organized planning commissions.

The most active commissions have generally been established in counties of increasing population accompanied by expansion of urban centers, highways, utilities and growth in the number of land units to be served. This activity has created many challenging problems in which the governing bodies have recognized the value of planning. Eleven of these commissions receive yearly appropriations in the county budget for the employment of technical assistance in carrying on their work. The counties with inactive or with no commissions are generally of a rural character where the rate of change is slow and urban problems are unrecognized or do not exist.

During the past eight years it has become evident from the work of the active commissions that there is a fundamental difference in the approach to county planning problems as compared to cities. The master plan as conceived in the planning act has its greatest effectiveness in urban areas where land is being subdivided and changes are rapid. But in the problems of the larger rural areas, the master plan becomes less significant because of the difficulty of accurate determination of future problems. In Kern County, for example, which is as large as the State of Vermont but with a population of only 70,000, the perplexing possibilities of future development can easily be imagined. Consequently, to date no county has adopted a complete master plan as defined by the act.

Counties have, however, generally adopted those portions of the master plan which required official action for the immediate solution of a particular problem. Los Angeles County has adopted a complete major highway plan to insure a proper highway network to serve its 44 growing urban communities. Through the highway plan, many miles of right-of-way have been acquired at no public expense. Similarly, setback lines have been established on major highways to preserve rights-of-way. San Diego and Los Angeles counties have adopted official civic center plans for their chief public buildings.

The most adaptable phase of the master plan act has proved to be the provision for a districting or zoning plan. Santa Barbara, San Diego, Monterey, and San Mateo counties have adopted zoning plans in urban areas of the county. Los Angeles and Orange counties have adopted zoning plans which include the entire area of each in an unrestricted

district. Detailed zoning has then been applied to certain urban districts by amending the basic ordinance.

Most of the zoning in California counties has been done in the environs of incorporated cities. Exceptional are the several highway frontage zoning projects in Monterey, San Mateo and Kern counties for the prevention of unrestricted business enterprise along several major highways.

Park and recreation plans have been chiefly confined to individual park design and acquisition problems. No master plans for transit or transportation have been found necessary in any California county.

Though not included in the planning act, the state law recognized the importance of county planning commissions in the control of land subdivision. No subdivision map can be accepted without the approval of the planning commission.

It is significant that this responsibility has been accepted uniformly throughout the State by even the relatively inactive commissions. Where technical assistance is available, subdividers have been given help and advice in preparing plats.

The ordinary subdivision represents the final land pattern upon which the community must grow. The guidance of this process toward a co-ordinated community development provides a planning opportunity which every commission understands. It is a definite addition to the master plan and usually requires a thorough study of adjacent areas and many related factors of community development. The guidance and control of land subdivisions is necessarily based on policies and standards established by the commission.

The same principle has been found successful in the solution of other problems of a planning nature. Location of new roads, road-classification plans, coöperative projects with state and Federal agencies, fact-finding reports of various natures, advisability of establishing special districts, public works programs and many other such matters have at one time or another been referred to commissions by the governing bodies. It is evident that the diversity of such problems would render the ordinary master plan inadequate. But Boards of Supervisors continually refer matters of this kind to commissions. They rightly believe in establishing first-class standards and policies for the solution of difficult current problems in preference to detail planning for future contingencies.

No planning commission or board of supervisors can accurately predict the future of such a large and indeterminate area as the average California county. With sufficient facts, however, certain fundamental policies may be formed, under which such a territory may be reasonably guided toward a well-planned development.

The time may come when the future of rural areas will be definitely regulated by land-use control. But until an exhaustive and scientific analysis is made on a national scale, and planned with a careful economic

balance, the ordinary planning commission, meeting once a month and working on a limited budget, cannot be expected to attempt such a program.

For the present, planning in distinctly rural areas should be established upon a basis of conservation. As the area develops, more definite and precise plans may be made and enforced when needed.

The main emphasis of county planning in California seems to be placed on the guidance of development in an emerging form, rather than on the inclusion of huge areas under a legal "mold." A revised planning law, now in the legislature, has been drawn to recognize this theory. The making of a master plan is still designated as the function of the planning commission, but with a greatly widened scope. While the highway, zoning, recreation, transit, transportation and civic center plans are definitely authorized, the new act provides for additional and possibly more vital needs of the rural and urban areas.

Conservation, land use, public services and facilities, community design and housing plans are added to give the commission more latitude in working out problems of county welfare. These plans may be prepared by the planning commission as a basis of policy. Then, when conditions warrant, more precise official plans may be adopted which bear the stamp of approval of the governing body and the backing of law. In many instances, other agencies may be called upon to help in the preparation of the official plan, such as the State Water Engineers; the State Planning Board; Federal Forest, Agricultural and Housing Agencies.

The act also provides for the establishment of regional planning commissions so that arbitrary county boundaries need not hamper planning work in natural planning areas.

Through the establishment of a State Planning Board, county commissions have even greater opportunities through contact with a common agency to assist in the solution of their problems and to set up uniform methods of procedure. The State Planning Board will act as a "clearing house" through which counties may work to a better mutual interest and avoid duplication of effort. It will also tend to create interest among the inactive commissions and create new ones where none now exist in problems which some rural counties do not recognize at present.

County and Community Planning in Oregon*

PHILIP A. PARSONS, Oregon State Planning Board, Salem, Oregon

THE Oregon State Planning Board began its official life with nearly a year of planning experience behind it. In the absence of a legally constituted board, the Oregon State Planning Council, a voluntary organization, had endeavored for over nine months to keep the State abreast of the planning programs going forward in surrounding States. The Planning Council had been recognized by the National Planning Board, now the National Resources Committee, as its official representative in Oregon, and the Chairman became a member of the Pacific Northwest Regional Planning Commission. Two consultants were assigned to the Council by the National Resources Board. These were Mr. V. B. Stanbery, who acted in the capacity of state consultant, and Mr. A. S. Burrier, who was appointed as land planning consultant. Mr. Stanbery is at present consultant and executive secretary of the State Planning Board. With their able assistance and with enthusiastic and highly efficient coöperation of a large body of officials and private citizens, the Council made significant progress in preliminary planning.

When the State Planning Board was created by the 1935 session of the State Legislature its members were appointed from among the group of men who had taken a most active part in the work of the Council. As a result the planning program went forward without interruption. The State Planning Council continued to exist as an advisory research body and in that capacity it rendered invaluable service to the newly created State Planning Board.

When the Board held its first official meeting a Committee on Planning Coördination and Development was created as one of several functioning Committees. It was to be the work of this committee to organize the planning program throughout the State and coördinate the planning programs of the different state, Federal, and private agencies and interests dealing with the same and related resources.

During the session of the legislature and in the organization period which followed, the Board enjoyed the effective coöperation of the newly elected Governor, Charles H. Martin, who championed the planning movement as one of the foremost policies of his administration.

At this early date those who were actively engaged in getting the planning program under way felt the need of closer contacts with the people of the State. That need made itself apparent in two ways. First, the greater number of those persons who were taking an active part in the work were officials of various state and Federal agencies which were already engaged in the conservation and development programs. As a

*Condensed from a paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

result, much of the planning was, so to speak, coming from above. These men realized that their plans could only be made effective when they were understood and to some extent concurred in by persons and groups affected. At that early date there was some indication of restlessness and suspicion manifested among those officials, interests, and individuals who would be affected when the time came to put the plans into operation. In order, therefore, to acquaint the public with the designs of the planners, to allay suspicion, secure coöperation and to start suggestions coming up from persons on the ground, it was decided to launch a program of organizing planning groups in districts, counties, and in communities when necessary.

County and community planning are not new in the United States, but most of the early county planning had some specific objective such as the control of the use of land for residence, commercial and recreational purposes as in some California counties, and the control of submarginal areas such as the cut-over lands in northern Wisconsin and Michigan. As distinguished from these, planning in the Oregon counties involved sparsely populated areas with a wide variety of resources, in which the objective was to assure conservation and the best possible use of resources, and above all, accomplish this in a manner to preserve existing relations between public and private interests without injuring either.

The job of getting planning started upon the ground was assigned to the committee on Planning Coördination and Development. The methods employed differed in different counties for several reasons. That method which was used most often and, we believe, most effectively was employed because of limited time and funds. Because of previous contacts with the counties through various service functions of the University and the State College, and the business relations of the several governmental agencies designed to deal with the depression, such as the PWA, the CWA, and the Relief Administration, outstanding men with a reputation for disinterested public service were known to the committee. In counties where such men were found one such leader was contacted by correspondence and asked to arrange a meeting for the chairman of the committee, to which ten or fifteen outstanding leaders of the county were to be invited. These men were to be selected as follows: One man should be selected for each of the more important resources of the county. He should be selected because of his knowledge of the resource, because of his disinterested service to groups interested in the resource, and because of his recognition by such groups as a trusted leader. The size of the group consequently depended largely upon the number of resources to be affected by planning in the county. To this number were to be added several well-known men not directly connected with or interested in any particular resource but whose county-wide reputation would inspire confidence in the group in the minds of the general public. It was a notable fact that at the meetings arranged in this manner the men who

came together to meet with the representative of the State Planning Board were, almost without exception, the best men who could have been brought together by any other method. At the meetings of these groups the reasons for organizing county planning boards were explained and a list of names suggested for nomination to the Governor for appointment. It was understood beforehand that the selection of men for the county boards was to be on the basis of fitness and that politics were not to be taken into consideration.

After these conferences the representative of the Planning Board sometimes discussed the list of names with one or more of the outstanding men of the county but few changes resulted from such interviews. The list of names secured in this manner was then submitted to the Governor with the recommendation that these citizens be appointed by him as the county planning commission for their county. Since there is no Oregon law providing for the creation of official county planning boards, this procedure was employed so that these unofficial boards might cooperate with the State Planning Board under the state planning board law. The effect of this was to make county planning boards advisory committees of the State Planning Board. In the cases of the first few counties organized in this manner the recommendations of the committee were followed and the men and women nominated were appointed. Very soon, however, the impression got about over the State that these boards were to have considerable prestige and patronage, and political influences got to work which soon disrupted this arrangement. Efforts were made to resist this pressure for a time but it eventually proved to be too powerful to overcome. In several counties the planning movement lost the cooperation of a number of very useful and influential men because of this fact.

In counties where conflicts of interests were known to exist and where it was feared that the method of organization described above might not get the best results, a second method was employed. The representative of the Planning Board went into the county unannounced and held interviews with leading citizens and secured from them suggestions as to the persons in the county most likely to succeed as members of a county Board. After a series of such conferences it was found that a group of names appeared on all or nearly all of the lists suggested. This was taken as an indication of general confidence in their ability and leadership. Tentative lists made up in this manner were then discussed with persons familiar with the county and the final list was recommended to the Governor for appointment. Several of the best Boards were secured in this manner.

After the organization of counties had been under way for some time, outlying counties began writing in, wanting assistance in setting up planning boards. Because of the delay involved in getting about to the county seats of each county, it was decided to try a regional conference

to which leaders of five counties were invited. Lists of persons to be invited were provided by Agricultural County Agents, Regional Foresters, public officials and Chamber of Commerce executives. Until the meeting convened no one knew how the plan would work because there was not time between the sending out of the invitations and the date of the conference to permit of replies to the invitations. To our great surprise and gratification every county was well represented. At a general meeting the reasons for the conference and the needs for organization were discussed. In the afternoon each county delegation met separately with the representative of the planning board and the tentative list of names secured. Because of the wide-spread interest in the movement, this method appeared to have worked about as well as any other.

Finally, on account of the size of the State and the extreme difficulty of getting about, together with the multiplicity of forces which had come to bear in the total situation, original plans for organization broke down and some counties were organized by correspondence directly between the communities and the Governor's office, and a number of boards were appointed by county judges under circumstances where it seemed expedient not to disturb them.

Mention should be made also of the fact that at the recommendation of the State Planning Board, the Governor in April, 1935, appointed a special promotional organization known as the Willamette Valley Project Committee to aid in promoting the development of the Willamette Drainage Basin. At the Governor's request the State Planning Board prepared a preliminary report outlining programs for development of this area as an integrated substate region, but since the Planning Board had no desire or powers to engage in promotional work, the Board's studies and plans were made independently of the promotional committee. About the same time the counties of the valley became interested in forming county planning commissions. The ones in Lane, Washington and Columbia counties were recommended to the Governor by the State Planning Board; other counties of the valley were appointed by the Governor, however, without clearing through the State Planning Board.

Probably the most serious weakness of the initial county planning efforts was the inability to tie the county judges in closely with the initial organization. It has only been during the last six months after constant and intensive efforts that the Planning Board has succeeded in bringing the county judges into close coöperation with their county planning commissions. This has now been successfully done in Clatsop, Tillamook, Douglas, Coos, Josephine, Jackson, Lake, Deschutes, Crook, Baker, and Willowa counties.

Since the primary function of county planning commissions is to act as advisory bodies to county courts and county officials, it is highly important that close and harmonious coöperation be established between the county planning commissions and the county courts as early as

possible. When the results of this failure to tie in the county courts more closely with the planning program became apparent, Governor Martin appointed all county judges and county commissioners as ex-officio members of their respective county planning boards. Unfortunately this action came a little too late to obtain the best coöperation, although this difficulty has been solved gradually in the active counties.

Immediately following the appointment of each county planning board, Governor Martin personally wrote each member, asking him to assist in preparing a coördinated program of selected improvement projects needed for development of their county which could properly be carried out by public agencies and financed by public funds. The Governor also asked the county planning boards to start studying the resources and needs of their county in coöperation with the State Planning Board's studies for state development. The Governor asked the county planning boards to serve not as promotional organizations or booster clubs, but to assume the greater responsibility of planning for conservation and development of their natural resources, and acting in an advisory capacity to their local officials and Federal and state agencies. Instruction sheets and bulletins were sent to the county planning boards at the same time, giving suggestions for reviewing PWA and WPA projects, and acting in advisory capacity to these emergency agencies. Additional bulletins were also sent out discussing county problems in general with the suggestion that the county boards select the problems they considered most urgent for their first efforts.

As a result the first few meetings were given over to acting upon works projects submitted to the boards by local public agencies in the county. Since these projects required considerable sum for local contributions, these lists were soon exhausted and the county planning boards were then left without much to do.

The State Board's staff then suggested that county planning boards start thinking about long-range planning and study of resources, problems, needs and opportunities. It soon developed, however, that this could not be done without technical assistants and continued consultation service. It was also obvious that the State Planning Board had more work cut out for it than it could do, and it was then decided not to organize any more county planning boards until the ones in existence had gotten farther along with their work. During the summer and fall of 1935, 28 county planning committees were organized and appointed, of which 12 are now active.

With the help of the Board's technical advisers and research staff, detailed procedure for assisting county planning boards in making a thorough inventory and study of their county-owned lands was worked out. During the last eight months this has proved highly successful in seven counties and we believe will be the groundwork on which future county planning will be built in Oregon.

This county land inventory comprises the preparation of a physical base map of the county, land ownership plats and maps showing ownership of all rural lands within the county, a map showing tax delinquency of these lands, a map showing assessed valuation of rural areas and a complete card record inventory covering each separate parcel of county-owned land.

Since it was soon discovered that county planning boards were unable to furnish adequate technical supervision of our WPA workers, an appeal was made to agencies having field representatives in the counties who might help in providing this technical supervision. The U. S. Forest Service and Resettlement Administration offered their coöperation. The Forest Supervisors in several counties directed our workers in assembling data and preparing maps, and arrangements were worked out by our consultant with the Resettlement Administration in January, 1936, whereby the Resettlement Administration would furnish the services of trained land planning specialists to supervise our workers in making exhaustive land-use studies in five counties having urgent and complex land-use problems. These detailed land-use studies did not duplicate or conflict with the county land inventory program described above, being instead, a comprehensive analysis of all the principal physical and economic factors required for determination of the best long-time use of all rural lands in these counties, both public and private.

In addition to these two separate land studies, detailed procedure was prepared for surveying existing recreation areas and facilities for the county as a unit. Two counties were selected in which to try out this procedure and a great deal of data have already been gathered.

In addition, several county planning boards have initiated and carried on studies of special county problems such as school district organization and school costs, drainage and irrigation development, fish conservation and surveys of mineral deposits. A comprehensive report describing the accomplishments of county planning boards in Oregon was published by the State Planning Board in December, 1936.

The county planning boards and the workers assigned to them have also been very helpful to the State Planning Board in collecting and transmitting data to state board's headquarters on special problems requiring local data. Several of the Planning Board's reports were made possible through data obtained by workers in the counties.

Many Oregon counties felt themselves so hard up that they were reluctant to furnish any funds to help finance county planning activities. This feeling is gradually changing, however, and county officials are beginning to provide some funds, personnel and equipment to help their planning board. Our experience has shown that it is best to establish firmly one county planning board at a time and gradually increase the number of active county planning commissions rather than to organize a large number at once and leave them largely to their own devices. In

order to establish county planning we have found it necessary to give the new county board some technical and clerical assistance before they could take hold of and become interested in their work.

In the following appraisal of planning in Oregon counties, the results are considered from three different standpoints, namely: the number of different projects completed, under way, or contemplated within a general plan; the importance of certain projects from a planning standpoint; and the amount of local appreciation and understanding of the planning movement itself, apart from individual projects and the present state of local programs.

From the standpoint of awakening interest in public improvements and promoting the construction of improvement projects, the Clackamas County Board is easily outstanding in the State. During the first year this board concentrated on a public building program for the county, which included 11 buildings, a water reservoir and a sewer system. This county board was also able to convince the State Highway Commission that future road programs should be designed to meet the county's needs and road projects should be approved by the planning board before work was started. The work of the Clackamas County Planning Board was described in the 1936 ANNUAL.

Significant achievements are the county land inventories in seven counties, the mineral survey in Douglas County, the detailed land-use studies in five counties, recreation surveys in two counties, and flood control and drainage studies in others.

The effort of the State Planning Board to develop planning in the counties was not without resistance in some quarters. In some counties resistance came from the county courts who could not see the value of having planning bodies. In other counties there was indirect resistance from groups interested in exploiting certain resources who feared planning might impose restrictions upon private industry. In several counties the representatives of the Planning Board were unable to convince leaders of the practicality of a planning program, but it must be said that most of these unconvinced persons are still willing to be shown.

As for trying to educate the people upon the ground as to the nature and values of planning, it may be said that relatively little has been accomplished to date. There can be no doubt that the program adopted by the State Board to interpret planning to the State through its conferences and newspaper publicity has done much to disarm suspicion among the people. In spite of this fact, relatively few of the rank and file and not more than a few of the outstanding business, industrial, and professional people of the State know anything whatever of the ideals and purposes of planning. However, the publicity given to planning has been highly popular with the local papers. The regional and county conferences have been well attended, and the first state-wide public planning conference in January this year drew a large and represen-

tative attendance, even from those counties where little or nothing has been done.

In several counties where planning was appreciated by county officials a desire was expressed to have the county planning boards established by law in order to permit the courts to budget funds for planning purposes. Consequently a bill was introduced in the recent legislature to legalize the appointment of planning boards by the county judges. This bill was defeated by the counties themselves. In two of the counties where the unofficial boards were succeeding, it was feared that the passage of the bill would eliminate the present boards and result in the appointment of entirely new and inexperienced boards and that in this manner much valuable ground already gained would be lost.

The planning movement has not really reached the rural folk as yet. In a preliminary exploration in this field, partly to determine whether local leadership existed with which local planning could be identified, a study of what have been called the natural communities was undertaken in three counties. Based on previous research carried on for a number of years at the University of Oregon, the natural communities were taken to be those areas from which the population gravitates to some common center habitually and regularly, to carry on activities designed to serve their own cultural and social needs. It was found, that the natural communities could be located with a high degree of certainty; that responsible leadership was almost always available in such communities; that the bulk of the rural population lives in and gets the major part of its cultural and social satisfactions in such community activities; and that a real basis for rural community planning could be found in them. It was discovered that those communities, in which the educational and cultural-social interests, and to a certain extent, the political subdivisions coincided more or less closely with the natural community, were doing a much more effective job of meeting their own cultural and social needs than those in which there was no such coincidence.

After acting for one year as Chairman of the State Planning Council and for two years as Chairman of the Committee on Planning Coordination and Development, the writer of this paper is convinced that it is highly important that the encouragement of planning in the counties *should continue*. Sooner or later the plans will have to be fitted to the land and the folks upon it. Much grief and confusion can be eliminated if the people on the land, owning the land, or using the land can be carried along and have a part in the plans which are ultimately to affect them. It may be found necessary, also, to do this if planning itself is to continue in the State with state support. If such planning is to go forward until the time when it will receive financial support adequate to its needs from state and county sources, it seems to be highly important that funds be made available to provide the State Planning Board with adequate facilities for promoting county planning and making it effective.

The pressing problems of rural resettlement and rehabilitation and land reclamation, not to mention many others, make it highly important that the planning program should not be limited to Federal and state planning alone.

Following is a brief summary of the conditions and needs for planning in Oregon counties as the situation is viewed by our Consultant, Mr. V. B. Stanbery and me. It has not been considered as a matter of policy by the State Planning Board, but I believe that the members would concur in the opinions therein expressed:

1. Oregon counties comprise large sparsely populated areas whose principal problems and needs are determination of economic land use and sound land management policies, conservation of forest and water resources, development of recreation areas, school consolidations and better adjustment between the tax base and the resource base.

2. There is a real need for a simple approach to county planning which the people can understand and grasp—first, it must show the people the complex problems facing them in a manner which they can grasp and point out the need for thorough study from many different viewpoints to determine how these problems may best be solved.

3. The county planning boards are unable to do any real planning or to carry on unless competent and adequate technical assistance is furnished to them. Many counties feel they cannot afford the money to finance county planning.

4. Our experience has shown that the best organization procedure is to establish firmly one county planning commission at a time and gradually increase the number of active county planning commissions, rather than to organize a large number at once and leave some of them without help.

5. It should be emphasized that county planning boards are essentially advisory agencies to county officials and that there must be close and harmonious coöperation between the county planning boards and the county officials. Without this harmonious relationship, success will not be attained.

6. The Board has met with a very real difficulty of developing a simple technical procedure for county planning studies under which the relatively inexperienced WPA workers can operate effectively. One of our greatest difficulties was that our advisory technicians could not agree in detail on symbols, maps, standards, etc. We have had to evolve our own original procedure for most of the county planning work.

7. It must be remembered that the visible results do not always constitute an adequate measure of the success achieved. Subsequent developments alone can reveal the full extent of the success or failure of our efforts in county planning.

Rural Zoning in Wisconsin*

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TWENTY-FOUR of Wisconsin's seventy-one counties are now zoned. The proper commissions have been organized and basic studies are nearing completion in thirteen others. The statutes under which this work is prosecuted are sufficiently broad to include necessary authority for the development of plans more comprehensive than would be included in zoning alone. The acts affecting county planning are, in some of their aspects, broader in scope than are the parallel acts having to do with city planning. In fact, a comparison of these Wisconsin statutes shows that the county may exercise its police power for planning purposes with less speculation than can urban communities.

The various statutes establishing the power to plan are, essentially, as follows:

Section 59.97, Subsection 1: "The county board of any county may by ordinance regulate, restrict and determine the areas within which agriculture, forestry and recreation may be conducted, the location of roads, schools, trades and industries, the location, height, bulk, number of stories, and size of buildings and other structures, the percentage of lot which may be occupied, size of yards, courts, and other open spaces, the density and distribution of population, and the location of buildings designed for specified uses, and establish districts of such number, shape and area, and may also establish set-back building lines, and may further regulate, restrict, and determine the areas along natural water courses, channels, streams, and creeks in which trades and industries, and the location of buildings for specified uses may be prohibited, and may adopt an official map which shall show thereon the natural water courses, channels, streams, and creeks and the areas along such natural water courses, channels, streams and creeks which may be restricted, outside the limits of incorporated villages and cities, as such county board may deem best suited to carry out the purposes of this section. For each such district, regulations may be imposed designating the location, height, bulk, number of stories, and size of buildings and other structures, percentage of lot which may be occupied, the size of yards, courts and other open spaces, and density and distribution of population, and the trades, industries or purposes that shall be included or subjected to special regulations and designating the uses for which buildings may not be erected or altered; provided, however, that the said county board shall before it adopts such ordinance or ordinances, submit the same to the town board or town boards of the town or towns in which may be situated any lands affected by such ordinance, and thereupon obtain the approval of said town board or town boards, so far as the same effects the lands in such town or towns, and in like manner any and all ordinances, which may amend any ordinance, which have been adopted as herein provided, shall be submitted to said town boards of the towns in which said lands are located and their approval obtained as to each such change before the same shall be adopted by the county board. Such ordinance or amendments thereto may be adopted as to such town or towns which shall have given their approval thereto."

Section 59.97, Subsection 4 reads in part: "The county board shall prescribe such rules and regulations as it may deem necessary for the enforcement of the

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

provisions hereof, and of all ordinances enacted in pursuance thereof. Such rules and regulations and the districts, set-back building lines and regulations specified in subsection (1) shall be prescribed by ordinances which shall be designed to promote the public health, safety and general welfare. Such ordinances shall be enforced by appropriate fines and penalties."

Section 59.98 permits the counties to acquire lands by tax deed and otherwise for the purpose of establishing county forest reserves.

Section 59.99 provides for a County Zoning Adjustment Board and defines its powers and duties which are substantially those of any zoning appeal board.

Section 80.64, Subsection 3 reads in part: "The county board of any county in this State, where it is deemed the general welfare will be promoted thereby, may establish for streets or highway widths in excess of those actually and presently in use, upon obtaining the approval of the governing body of the municipality in which each such street or highway, or part thereof, is located, and may likewise adopt plans showing the location and width proposed for any future street or highway."

Section 27.02 provides for the appointment and defines the power and duties of a County Park Commission which is the body having power to make the necessary studies and recommendations for county plans. We rely on this group more than some others which might be used because its members—which number seven—are appointed for seven-year terms only, one term expiring each year.

Section 27.20 sets up the State Planning Board, creates the office of Director of Regional Planning and defines the duties, one of which is "To cooperate with all county, city, town and village commissions, boards or committees charged with the responsibility of planning or zoning certain areas or districts within their respective corporate limits. . . ."

Section 20.49 makes an annual appropriation for the State Planning Board staff.

Chapter 236 makes the approval of the Director of Regional Planning necessary before any subdivision plat, subject to town government, may be recorded.

The planning of counties, in general, has not yet reached the same degree of popularity as has the planning of cities, nor has it acquired the large mass of court support. But, since both have the same foundation in law and are based upon the same broad principles, past experience with city planning and zoning should form a sound general guide for county planning and zoning procedure. In Wisconsin, we look upon court decisions with much respect. We believe it sound policy to follow the implied admonition when a Court says:

"Municipal corporations are bodies politic, vested with many political and legislative powers for local government and police regulations established to aid the government of the State. The necessity for their organization may be found in the density of population and the conditions incidental thereto." (Sidney Coin v. Forest A. Lydden, Appellant—343 Ill. 217.)

Further: "The purpose of the law is to bring about orderly development. . . . If such regulations stabilize the value of property, promote the permanency of desirable home surroundings, and if they add to the comfort of the citizens, they, therefore, promote the general welfare. . . . We do not hesitate to say that the attainment of these objects offers a legitimate field for the exercise of the police power." (State ex rel Carter v. Harper. 182 Wis. 148.) This statement surely has as much application in rural zoning as it does in urban zoning.

Again: "Zoning necessarily involves a consideration of the community as

a whole and a comprehensive view of its needs. An arbitrary creation of districts, without regard to existing conditions or future growth and development, is not a proper exercise of the police power and is not sustainable." (City of Aurora v. Burns et al.)

"Such a statute (zoning ordinance) is unconstitutional, if its provisions do not apply equally to all persons in the same class or if the classifications have been arbitrarily made without substantial distinction between classes to which the legislation is germane." (R. B. Schwan v. City of Eau Claire, Wisconsin.)

"Zoning which admittedly limits property to a use which cannot reasonably be made of it cannot be said to set aside such property to a use but constitutes a taking of such property without just compensation." (Tews v. Woolheizer 352 Ill. 212.)

The above are only a few of many such statements now existing.

The desirability of planning is not always as obvious to the rural citizen as it may be to the city dweller and, frequently, questions are raised which are answered best when the general attitude of the courts can be set forth. It is sometimes difficult to convince county authorities that they do have the authority to regulate the use of land and that it can be exercised for certain well-defined purposes. Again, the importance of necessary groundwork and factual studies must be pressed home. There is, frequently, a tendency to lean strongly toward the piecemeal zoning of specific areas in a unit as large as a county and this must be discouraged. When designing regulations for the use of rural land, we always endeavor to so draft the ordinance that acceptable alternate uses are permitted in the place of any that may be zoned out.

In 1923 Wisconsin passed its first law permitting counties to regulate the use of land outside of incorporated cities and villages. This arose from a condition imperatively demanding relief. The use of lands which, socially and economically, were parts of the city, although not contained in it, violated every principle of order and economy. Milwaukee County availed itself of the power and passed an ordinance regulating the use of county lands for residential, commercial and industrial purposes. In accordance with the statute as it was then written, agriculture and all other uses were left unrestricted. This county is the most highly urbanized in the State, having a population density of 3,086 persons per square mile and it is, practically, the hub of the southeastern industrial area.

At the opposite end of this scale of urbanization is Sawyer County, located in the cutover lands of northern Wisconsin, having only eight persons per square mile. In the north, there are vast areas of cutover timber lands, sparsely settled and having generally poor soil. Here the need for regulating land use is entirely different from that existing in Milwaukee County. Tax delinquency, the reversion of land to the counties and the high costs of local government due to scattered settlement, created problems of a character peculiar to that part of the State. In 1929, the zoning of this area was recommended by the Interim Committee on Forestry and Public Lands. In the same year, the zoning act

(Section 59.97 of the Statutes) was amended to permit the regulation of the use of land for agriculture, forestry and recreation. The first ordinance under this amended act was adopted by Oneida County and since that time, 22 other northern cutover counties have followed that example. These 23 counties include 41.7 per cent of the area of the state and 16.2 per cent of the population. Including Milwaukee, the twenty-fourth county, we have now zoned 42.1 per cent of the area which includes 40.8 per cent of the population.

The ordinances in these 23 northern counties were drawn by local authorities in collaboration with and under the guidance of some of the public officials, particularly with state officials associated with the College of Agriculture and the Conservation Department who were aided by the Attorney General's office. Meetings to explain the purpose and possible effect of ordinances were held in every town. After such educational discussions, it was found that the people were generally favorable to the enactment of land-use regulations. It may be stated here that the most valuable work done in the development of the zoning plans was extralegal. Meetings and hearings were held wherever and whenever it appeared that some good could be done. Much will be lost if the authorities make no effort to explain these proposals beyond that resulting from the bare legal requirements for public hearings.

The Oneida County ordinance provides for only two kinds of use districts, the one being "Forestry" and the other an "Unrestricted District." In the "Forestry" district many uses other than pure forestry are permitted. There are included in the permitted uses all forest allied industries and such other uses as the gathering of wild crops, berries, moss and hay. Hunting, trapping and fishing may be conducted but the district is restricted against farming and all-year residence. The prohibition of these latter uses was the primary object of the early zoning ordinances and they are specifically designed to prevent the necessity of maintaining inefficient and costly schools and long stretches of roads which perform no great service. In this connection, it should be remembered that rural schools in Wisconsin receive a grant of \$250 a year from the county and another \$250 from the State. Further, there is an allotment of \$50 a mile by the State to the towns for each mile of town road. It needs no detailed explanation to indicate what the effect of this may be in areas having only a widely scattered and largely isolated population.

The adoption of these zoning plans has resulted in the removal from agricultural use of about five million acres of marginal and sub-marginal land in northern Wisconsin. In addition, the organization of state, county and national forests has removed from such use another million acres, making a total of six million acres of land now restricted against agriculture and which are producing a timber crop. It should be noted that this restricted area is more than one-sixth of the total area of the

State and that this land has been retired from agriculture without other cost than the time of regular public officials in the normal pursuits of their duties. This whole area is very effectively protected against fire through the efficient organization of fire prevention and control methods by the Conservation Department.

The wide difference in the degree of urbanization between Milwaukee and the other zoned counties has already been noted. Between these two extremes, there are 47 other counties in the eastern, southeastern and western parts where, as yet, there is no effective county planning or zoning. In these areas, the development ranges from high-type agriculture and dairy to intensive industry—the terrain varies from gently rolling to the steep slopes and deep valleys of the unglaciated southwest. For all practical purposes, the land is practically denuded of timber; yet there are localities where timber and allied crops are much to be desired over the present production. Sporadic attempts at zoning parts of these areas have been undertaken in some of the counties, notably, Walworth, Kenosha, Racine and Manitowoc. These efforts have been directed toward the protection of newly developing residence districts beyond the corporate limits of any city or village. This method of zoning has been consistently opposed by the State Planning Board because of its piecemeal aspect and because we believe that such zoning would not successfully withstand legal attack. This has already happened in Racine County where the Circuit Court has invalidated such a zoning ordinance giving as one of its reasons for such invalidation, that it was not a part of a comprehensive county plan.

It is a matter of policy with the Wisconsin State Planning Board to begin the promotion of local planning in the highly industrialized southeastern counties and to spread from that area westward and northward to finally join the planned regions of the north. In the southeastern section, we have an entirely different situation from that existing either in Milwaukee County or in the north. These counties contain several industrial cities of fair size such as Racine, Kenosha, Oshkosh, Green Bay, Fond du Lac, Sheboygan, all of which are located in a very highly developed agricultural region. In addition to the agricultural and industrial aspect of this area, the problem of zoning is complicated by the large number of summer residents who move into their cottages in the early summer and remain there for the whole season, as, for instance, in Walworth County, where the summer population is considerably larger than the total rural population of that county.

In attempting to draft plans and zoning ordinances for some of these southeastern counties, one fact is thrust prominently upon those making the studies and that is, that all such plans must take on a much more urban than rural aspect in order to cover the ground thoroughly. By this is meant the fact that, due to the complexity of the development, more numerous uses must be provided for than have been established

in the northern counties and at the same time, the area bears a decidedly more rural aspect than does Milwaukee County. The net result is that provisions must be made for zoning districts beginning with single family residences all the way down, through and including heavy industry. Such an ordinance is now being developed for Walworth County.

An agricultural district is set up in which, as the name implies, agriculture and its allied industries is the principal use and it, of course, represents the larger portion of the area of the county. Here land subdivision is also permitted but a tentative density regulation of 8,000 square feet per family has been established. This is considerably larger than the average size of lots as now subdivided and platted but is felt to be desirable and, if subject to criticism, will be on the basis of the fact that it was too small rather than too large.

One other important district has been established which should be mentioned separately. It has been labelled a "Forestry District." In general, this includes land located in the terminal moraines in the north-western and north-central part of the county. Those of you who may be familiar with terrain of this type know that it consists of a series of small, steep, gravelly hills with deep "kettles" between them. The land, in general, is not of high agricultural value, the slopes are too steep and the soil is too stony for purely agricultural use. Therefore, this area has been restricted to timber and other wild crops, recreation, hunting, fishing and boating. The terms of the regulations are such as to encourage forestry and soil-saving processes and to discourage general farming. It is worthy of note that in all of the discussions which have taken place in connection with the proposed regulation of land use in Walworth County, this particular proposal has been subjected to much less discussion than some of the others—in fact has met with unlooked-for support.

Other things to be noted in connection with the zoning regulations of Walworth County are that there is no provision anywhere in the ordinance for the legal establishment of automobile junk yards and that billboards are prohibited in all districts, except the business and industrial districts. These proposals have also met with considerable favor. All residential uses are prohibited in the industrial districts.

The experience of the State Planning Board in the development of planning proposals for this section of the State has been interesting. The economic pressure for zoning in this area is not as great as it was either in Milwaukee County or northern Wisconsin but it is beginning to be felt and the authorities in general appreciate the value of such regulations. It is the feeling of the State Planning Board that whatever state plans are made for the social or economic development of this unregulated area must depend largely on the successful use of local plans drafted in harmony with a broad state base—in fact, the Wisconsin Statutes make the ultimate acceptance of any plan dependent on the action of the town boards.

One thing that always appears in the early discussion of such proposals is the question of cost, particularly in these times, and we find that however great may be the willingness to undertake the work necessary for making a plan, it would be inevitably stopped, in every case, if the counties were required to lay out money for this purpose. Fortunately, Wisconsin has a paid state planning staff of sufficient experience and versatility which, when combined with the activities of other state departments, makes it possible to undertake the necessary basic studies for these counties. It has, therefore, been our policy to state flatly to the authorities that the State Planning Board will prepare all necessary studies and, if desired, draft legislation looking toward the development and administration of a comprehensive plan, without cost to the local units. On this basis, we have been able to make substantial advances toward the planning of seven of these highly developed counties.

In order to establish the proper factual background for planning and supporting legislation, we make the following studies and map the results.

The most complicated and detailed effort is directed toward the mapping of the present land use. This map shows the present use of all of the land under the classification of crop land, permanent pasture, pasture lands, stump pasture, wood-lots, marsh lands, waste lands, water, recreational lands and special uses with several sub-classifications under several of these heads. This in turn is supplemented by two others which show (a) specifically the existing wood-lots and (b) those areas which it is desirable to reforest.

Other studies show the location, use and condition of every building in the county, the transportation and highway systems, bus and truck routes, existing and necessary grade separations, the age, condition and type of all highway improvements, the power transmission lines, and generating stations.

The location and extent of all tax delinquent lands by 1, 2, 3, 4, and 5-year delinquencies are tabulated and mapped.

It is thoroughly realized that the planning of the areas we are now operating in is different from what has gone before in Wisconsin but it is felt that by careful and painstaking study, a sympathetic attitude toward the movement is being developed and that the future will see all of Wisconsin acquiring the benefits of a sane use of its natural resources through adequate planning.

IN THE CITIES AND TOWNS

The New Approach to City Planning

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1. *Regional Thinking.* None of us can plan successfully unless we find out what the other fellow is going to do. Of course, it's possible to "barge ahead" without giving anyone else a thought, but that kind of thing doesn't get very far.

The tides know but one master. All things that flow know no political boundaries; the flood of people and goods between great metropolitan areas, the sweep of vehicles of the air across the States, the surge of the swollen waters of a river from the mountains to the sea, are not controlled by state, county or city lines.

The little town is subject to outer influences of the larger cities. If it is in the path of a major flow, it needs to plan first for this outer overlaid influence before it can successfully plan for its own peace and protection. Deerfield and Lexington, Massachusetts, have had this experience.

In Fairfield County, Connecticut, an all-purpose relief road for the Boston Post Road, between Port Chester and Bridgeport, becomes a highly important parkway link in the Connecticut and New England traffic system, when regional thinking is applied. At the same time, it releases the towns in its path to make themselves what they will, since the through traffic problem is solved.

The floods of the last two years have done much to accentuate the absolute necessity for regional thinking. Towns and cities are aware that recurrence of flood can be prevented by intelligent construction of control measures on the upper reaches of the river as well as by channel work and levees below. States are aware of the relations between highway and flood control measures and are integrating their construction programs so as to avoid the building of any more highways in the areas later to be flooded by a storage reservoir. The towns and cities have begun to study the possibilities of the use of zoning in the control of land use in areas subject to flood and needed for pondage in times of flood.

The study of groundwork for guiding and servicing vehicles of the air that travel two hundred miles in one hour has brought a new regional picture into planning.

Every problem the planner faces today requires a look beyond, before a search within. This of course has always been so, but never possibly with the need and intensity that it has now.

2. *Increased Intelligence.* Great blessings and great tribulations so often go together. With the trials of the depression, when business stopped, came the opportunity to take stock and this opportunity was seized upon by the Federal, state and local governments. Through the relief agencies, guided by competent supervision from departments of the

government, and through planning agencies, guided by technicians supplied by the National Resources Committee, a vast amount of basic data has been assembled that could not have been brought together otherwise. We now know more about people and land and what people have done and are doing to land and buildings than we ever have known.

Social and economic factors are much better known and possibly better understood. We know more about the people we are dealing with. Topographical maps, land-use, soil, subsoil, ground-cover data are now available. The things people need and their ability to pay for them are better known. All this material, when properly digested by competent authorities, gives more light on planning problems.

3. *The Power of Review.* Though planning boards and planners have wisely refrained from seeking it themselves, there has been a growing demand from the citizen that they be given power to review the work programs of their communities and to secure thereby a reasonable conformity to the city plan. The charter of the City of New York and the legislation in several States and cities calls for the making of a master plan, the approval or disapproval by the plan authority of plans for any and all physical construction by the city as it is undertaken and the final power of the legislative branch of government to overrule the planning agency by a two-third or three-fourth vote.

This trend toward the power of review is heartening. It has come about through the citizen who is tired of having his enthusiasm excited by practical and economical plans and then being forced to witness the construction of impractical and expensive projects diametrically opposed to these plans.

4. *A Part of Government Organization.* Another general trend that is heartening is the trend toward making the planning function a definite part of the governmental structure. The planning office that is never open and that has no continuing function, except an occasional meeting during the year, cannot hope to be much of a factor in shaping the destiny of a community. Its annual report is likely to consist of a few sentences saying that it suggested the location for the bandstand on the Common and accounting for the expenditure of a few dollars for postage. It is not uncommon, however, in the last few years to find the offices of a planning board on the ground floor of a town hall next to the Town Manager's or Selectmen's office and well equipped with new topographic maps and data, including a live Town Plan and, what is most important, staffed with full-time planning personnel having the periodic guidance of a competent consultant. These towns and cities have discovered that a full-time planning division of their government pays.

5. *The Plan a Living Instrument.* Likewise fundamental to the successful continuation of planning is the growing understanding that the plan is a continuous living instrument capable at all times of pointing the way toward the best and most economical development for the city as a

whole. This plan is not labeled as the work of any one person or group, but the plan of the community. It is constantly subject to change in light of changing conditions and widening intelligence. No community should speak of its plan in the past tense. There always should be a plan NOW—living and growing with the life and growth of the community itself. This is a new and widening trend.

6. *The New Approach.* The new approach to city planning comes through the gateways and paths opened and developed by these general trends. Design still is a fundamental consideration: A design based on the soils, on topography, and the elements of wind and rain and frosts, a design based on a conception of the destiny of a community in relation to the region beyond; a design woven with an understanding of the social and economic status of the people.

Planning today is much more a search for a pattern of land use in relation to people, and services to these people, so arranged as to provide a way of living and protected and implemented by legislation. Cities and towns having plans and zoning ordinances are studying them critically under competent guidance, to see whether or not they meet these specifications. Thus, in a community declared by citizens and Chambers of Commerce to be catering to the suburban home-seeker, we find large areas zoned for one hundred forty families per acre, or nearly twice the average density of population on the lower east side of Manhattan. In this same community we find a three-foot side yard provision for the high-class residential section that at present has its homes fifty feet apart! Another city beginning to take stock of its zoning has discovered that it has no residential section adequately protected for single family houses.

There has been too wide a separation between the plan and its zoning protector. They have known each other for a long, long time, had their differences, and made up. We still await their marriage. This trend for unification of plan and zoning is growing and will be a great benefit to the whole movement for there is absolutely no relation between the plan and the zoning ordinance in many communities today. The new trend toward the continuous functioning of the planning organization implies a continuous process of adjustment and refinement and a new organization and administrative procedure. The new trend toward regional thinking implies constant contact with planning agencies beyond the confines of the municipality and an alertness to influences and trends impinging upon and overlaying the small area. Thus, the planning commission of Darien and Norwalk, Connecticut, must maintain a close relationship with the Fairfield County Planning Association in order to gage the trends in the county with the plans for the town and city. Likewise the County Association must keep posted on the latest plans of the New York region and the State of Connecticut. On matters of regional significance, such as the development of flood control and water resources plans for the Connecticut River Valley, and the Atlantic Coastal Free-

way that will serve New England from Maine around Boston through Connecticut to New York, the States must coöperate through the New England Regional Planning Commission. This new regional alertness implies continuous operation, as well as coöperation, and all this takes carefully worked out organization and administrative procedure in order not to be cumbersome. Town and city representation in County Planning is obtained in Fairfield County, Connecticut, by two directors on the Association from each town, and technical representation through a technical advisory committee representing the best talent in all communities. Representation on state planning boards has been obtained by contact between officers and consultants, while the contact between State and region in New England is obtained through the fact that the Regional Commission is composed of the chairmen of the State Commissions with the District Chairman as Chairman. The Board of Consultants is composed of the consultants of all the States with the Regional Consultant as Chairman.

Another factor influencing the approach to City Planning is the factor of the opportunity for greater intelligence. I mean by this that we know today much more about the causes and effects of social and economic factors and certainly vastly more about existing social and economic conditions in all communities and regions. There is no excuse today for making a zoning ordinance that provides 56 miles of business frontage in a community of twenty thousand, or setting population density regulations permitting lower east side conditions in a charming rural town.

After all, the new approach to City Planning is just a wider understanding of the best city planning practice bolstered with increased information and intelligence. With this development has come:

1. A widening of vision beyond political boundaries, a look beyond before a plan within.
2. A wise application of the power of review by the planning agency of all physical construction projects and municipal land transfers and use.
3. A greater understanding between technicians in inter-related lines—such as sociology, economics and geography—and a greater use of factual material in determining the destiny of a community and the economic and social future of its people and a greater appreciation of these data expressed in the plan and zoning ordinance.
4. A growing tendency to incorporate the planning function as a part of governmental organization.
5. A realization that the plan is a living instrument, not for spending new money, but for guiding the expenditure of funds that would be spent in any case, along lines that will further the sound economic and social progress of the community.
6. A new understanding of organization and administrative needs and methods to accomplish this new approach to City Planning.

What of the City?

THE URBAN COMMUNITY AND ITS PROBLEMS*

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NATIONAL ASPECTS OF URBANIZATION

Rise of the City. In the brief period of a little over 100 years our country has been transformed from a primitive rural frontier settlement with a handicraft economy into an urban industrial society of a most advanced type. Since 1920, or shortly before, the majority of our people lived in urban places (definition by U. S. Census—with few exceptions, incorporated places of over 2500 population) and, by 1930, almost one-third of them in the 93 cities of over 100,000, nearly one-half in or within the environs of these cities. Of other countries of the world, only four may be said to be more urbanized than the United States—England and Wales, the Netherlands, Italy, and Germany—where a smaller proportion of the population is found in places under 10,000. Only England and Wales, and Germany have a larger proportion of their population living in great cities of over 100,000. With 28.6 per cent of its population in the city of Vienna, as a result of dismemberment of the Austro-Hungarian Empire after the war, Austria cannot fairly be used in this comparison.

However, these population figures do not begin to give an adequate measure of the urbanization of our country or of the dominant rôle the urban community has come to play in the life of the Nation. The city has become not only the principal place of residence of our people, but the primary workshop of the Nation, the heart and nerve center of our intellectual and cultural life, and the seat of our most important division of government.

Varying with the unit of measurement used, from three-fourths to four-fifths of all the goods we produce are made in 155 urban industrial counties (of the 3,070 counties in the United States), and the 93 cities of over 100,000 account for more than three-fourths of the total wholesale trade. Far from being the parasite it was once accused of being, the city not only provides our entire population with practically all the manufactured goods it uses, but even performs some of the farmer's work and prepares some of the food for the farmer's table. The city, moreover, is the center from which our cultural life emanates and spreads throughout the Nation, where our cultural institutions, facilities and personnel are predominantly found—the newspapers, radio stations, libraries, museums, theaters, operas, symphony orchestras, hospitals, and the higher

*Condensed from a paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937, based on a Report of the Urbanism Committee to the National Resources Committee.

educational institutions. As to government, urban governments have become more important in point of personnel employed, expenditures and the services they render, than either the Federal, state or local non-urban governments, and have come to play an important rôle in the economic life of the Nation.

Lag in Recognition. Curiously, this rise of the city to a dominant position in the national scene was not accompanied by its adequate recognition in the legislative halls of the Nation and in councils of government. In many respects we are still dominated by a rural outlook—the city pays most of the taxes but the country makes most of the laws—and, in comparison with the attention given to rural areas, the city remains the neglected child of the national family.

Preconditions and Forces of Urbanization. Here, as in other industrial countries of the western world, this urbanization and the assumption by the city of the primary rôle in national life were made possible by, or were due to, a number of major factors and forces. A surplus of agricultural production, and the consequent releasing of a substantial part of the rural population, coupled with the development of transportation—plus modern sanitation—were the preconditions of industrial urbanization. Power-driven machinery, the application of steam as a source of power in production and transportation, scientific inventions and continued technological developments in manufacturing, transportation and communication, promoted and hastened the process.

With the exception of the quite recent development of electric power and the internal combustion engine, which are factors of the dispersive category, all earlier forces which conditioned urbanization have operated cumulatively and progressively to promote concentration. The economies of large steam plants and severe limitation on power transmission favored centralization, and the early forms of transport but accentuated this trend. While new forms of transport and successive advancements in transport technology created increased possibilities for the diffusion of urbanization, the policies and practices pursued by private enterprise in respect to both, the providing of facilities and the fixing of charges, operated to further concentration, had the greater weight, and thus controlled the course of urbanization.

Outlook for the Future. As regards the future, changes are taking place in the relative potency of the forces that influence the amount, distribution and form of urbanization, but there is no definite evidence of a major change of direction in the trends which they collectively produce. After the temporary reversal for two years (1930-1932) during the throes of the depression, the trend in migration is again from the country to the city. Urbanization can be expected to continue even after the total population may cease to increase, although the growth of our cities is not likely to proceed at anything like the rate during recent decades. Metropolitan areas are likely to continue to draw population from the rural

section and small urban places and to absorb a larger proportion of the future urban growth than would be their share, although the central cities themselves may not hold their own and may even decline. Further diffusion of the population in these metropolitan areas may be expected, but not wholesale decentralization. The cities of declining population will continue to be mostly the smaller ones.

For one thing industry is not decentralizing in the sense of leaving established industrial areas in large numbers for widely scattered small communities. Such industrial shifts as are taking place are largely between industrial areas of similar character and from central districts to outlying sections of the same industrial area. There is an indication that in this process industrial locations are becoming rationalized and the industrial pattern stabilized.

THE CITY AND ITS PROBLEMS

What are the conditions produced by rapid urbanization within the American city, what are some of the salient problems and difficulties it faces?

Variations among Cities. It is recognized that it is difficult to discuss the city in collective terms. There are great variations between cities in size, age, growth, function, and in their relationships to other cities and their surroundings. The average American urban community counts 21,800 inhabitants but they range from 2,500 to 6,930,446. Over 2,000 of the 3,165 urban places attained urban status only within the last 50 years. During the last census decade 532 declined in population in the face of the spectacular growth of others.

City and Country Compared. Some time ago the city may have been the place where pestilence and disease were rampant and exacted their heaviest toll, but today as a result of modern sanitation and advanced public health services, it compares favorably with the country, at least in respect to infant diseases, water-borne diseases and tuberculosis. In fact, measured by infant mortality rates and the availability of medical help, the people of medium-size cities are better off than those in the large places or in the country. Death rates, too, are generally but slightly higher in the cities than in the rural areas. Neither can it be said that living and housing conditions in urban communities are inferior in every respect to those in rural areas. For while it is true that a substantial proportion of the population of the largest cities lives in substandard homes and under conditions of over-crowding which deprive them of adequate light and air, and that these at least are available in ample quantities in the flimsiest tenant cottage, and while it is also true that the rural dweller can better manage without modern sanitary facilities—it is nevertheless a fact that rural people are much farther removed from the comforts and sanitary conveniences which the major-

ity of our people in the cities already enjoy. Neither is it generally true that cities are the characteristic home of lawlessness, crime, delinquency and vice. Certain types of crimes, notably those against property, are proportionally more numerous in the cities than in the country, but crimes against persons are proportionally more frequent in rural areas, and such forms of lawlessness as lynching are limited almost exclusively to rural areas and small urban places.

While in some respects there are greater hazards and handicaps, greater extremes in wealth and poverty, and more tenuous economic existence in the city as compared with the country, there also are greater opportunities for stimulating associations and for material and cultural personal achievement and community development. A true balance of the advantages and disadvantages of the urban and rural ways of life would be difficult to strike. But anyone who has read the report of the FERA on "Six Rural Problem Areas," or the recent report of the President's Committee on "Farm Tenancy" will agree that compared with some of the conditions there described even the urban slum dweller's lot seems more compatible with civilized existence. Since 1790 our farm population has increased but 15 times while that of urban places 300 times—from 5 per cent to 56.2 per cent of the total population. It seems also probable that in gaining the greater security which the country might offer to a larger proportion of our population, we would have to forego many of the present-day material and cultural advantages. Except under the pressure of irresistible forces this will not happen. "Rurbanism" in the small places and in the environs of better articulated metropolitan cities along the lines first advocated by Ebenezer Howard, might prove a happy compromise. But the city is here to stay.

PROBLEMS OF THE CITY

Economic. Most fundamental problems of the city are not peculiarly urban but rather national, and are becoming increasingly so. Poverty and inequality, insecurity of employment, alternating booms and depressions, and the personal, social and governmental problems these engender, are the basic weaknesses of life in both city and country differing only in degree and their manifestations. The slum, and the problems of delinquency, crime, health, fire hazards associated with it, are fundamentally traceable to these economic causes. Insecurity of income, particularly, is an ever-present threat in our industrial society to a large proportion of the city workers, against which they haven't even the defenses which in rural areas at least help to sustain life on a bare subsistence level. Many of the most serious urban problems will be incapable or very difficult, of solution unless larger and more secure incomes can be brought to a larger segment of the city people. The standard of our national life may depend on a solution of the economic problems of city workers.

Population. Foremost among the problems created by urbanization is the biologic suicide of the cities. Their phenomenal growth was due principally to migration from the country and from foreign lands. Cities do not produce enough children to maintain their numbers. Only three cities of over 100,000 had a reproduction index in 1930 high enough to maintain a stationary population. This class of cities on the whole had one-fourth less children than necessary for a stable population, while rural communities had a surplus of over 50 per cent. This reproduction index increases consistently and inversely with the size of the city, but the only urban places that as a class have an index somewhat above that required for a stable population are those in the 2,500 to 10,000 class. This failure of the city to reproduce itself is common to all industrialized countries. Apparently urban life is not conducive to family life and reproduction. Considering that the birth rates in rural areas are also decreasing rapidly, one is inclined to the belief that this general decline of reproduction rates is characteristic of contemporary civilization.

Social. In spite of the great advancements made in sanitation and public health services, without which, as already mentioned, the great cities of today could not have come into existence, also in building regulations and provision for public recreation, much remains to be done to overcome or lessen the many dangers to health in the city. Population densities are all too high in many sections and large numbers are often housed in overcrowded obsolete structures which do not admit adequate light and air; playgrounds and parks are far from being adequate, especially in the congested residential areas where they are needed most. There are still too much smoke, dust, too many objectionable odors and waste of all sorts, too much unnecessary noise and too much ugliness in our cities—sapping away resistance against respiratory diseases and against the strains of urban living on the nervous system. Courageous and tenacious attacks on these dangers to health, as well as against social diseases, are still to be launched. Some of these matters are problems of urban local government; others like the drive on social diseases call for aid, coöperation and leadership by government on higher levels. As in the case of many other problems, extension of the legal powers are a real jurisdiction of local government, greater financial resources, and more effective coöperation among governmental agencies on different levels are prerequisite to success in these fields.

So, too, with crime, vice, and delinquency. These, like diseases, do not respect the city limits or state lines. Deep rooted as they may be in the defects of our economic and social system, much could be accomplished by more emphasis on preventive and curative treatment in place of punishment, by minimizing poverty and inequality, by providing better housing and a decent urban environment for the lower income groups; by the fostering of neighborhood and community spirit, better provision for wholesome recreation and guidance and opportunity for self-express-

sion and self-development. The police, prosecutors, judges and jails will not solve these problems.

Governmental. Inadequate legal powers and tax revenues, failure to adjust the spatial limits of their jurisdiction to correspond more nearly to the boundaries of the urban area in recognition of its social and economic unity, especially in metropolitan regions, to rid these of the maze of overlapping, duplicating and often conflicting authorities—are basically at the root of the difficulties. Others have to do with inadequate recognition of the peculiar problems of the city and, in general, the city as a city, by the state and until recently by the Federal governments. Also with the constitutional systems which force the city to look to an unsympathetic and, judging by the record of the recent emergency, an impotent state government, for its legal powers and for assistance in the solution of its problems, and prohibits direct relations with the Federal Government, which has shown willingness and capacity to come to its rescue.

Six of the largest cities, New York, Chicago, Los Angeles, Detroit, Boston, and St. Louis, have risen to greater importance in fiscal matters for example, than the States which contain them. Our great cities overflow township, county, state and even national boundaries—22 of the 96 metropolitan districts containing 26,000,000 people, nearly 40 per cent of our urban population, straddle state lines—but these facts are disregarded, and no adequate political and governmental machinery has been provided or invented to meet the needs of this modern product of urbanization—the Metropolitan Region. Instead we find in the Chicago Metropolitan District 1,621 local governmental units, 454 in the Los Angeles Metropolitan Area, cities, villages and boroughs, counties, townships, school districts and a great variety of other special districts—to give but two examples.

One of the most serious consequences of this disorganization of governmental units and areas is the confusion of conflicting and overlapping taxation, the vying of Federal, state and local governments with one another for the sources of taxation and for the tax revenues themselves. There is no defensible relationship between tax revenues and the functions and responsibilities of the several forms of government, and in this contest, with their hands and feet tied, the cities are consistently among the "also ran." The present situation places an insurmountable handicap on the cities in their efforts to meet their problems and improve the quality of urban life. Nothing short of revising the national public revenue system from top to bottom, as a coöperative undertaking by all levels of government, will remedy these conditions.

Development and Planning. Concentration and congestion of every sort—population, buildings and traffic—and inadequate public facilities in the center; haphazard dispersion, unnecessary or premature subdivisions and superfluous public facilities in the outskirts. Over-inten-

sive land uses in small central areas; under-use and deterioration in large sections. Indiscriminate intermingling of incompatible uses everywhere, save the more recently built-up areas. Lack of public spaces for recreation and other socially desirable purposes, and an excess of unproductive privately owned land. Lag in needed public improvements. Despoiled waterfronts, unattractive general appearance, obsolescence, inconveniences, inefficiencies, and waste of material resources and human effort, public and private. Such is a partial list of the most prevalent evidences of our failures in city building.

First among these causes is the extremely rapid rate at which urbanization has taken place and the even more spectacular growth of many of our cities, especially the larger ones.

Another consequence of rapid growth has been the orgy of speculation in urban land which it spurred and which, in the absence of social control through appropriate land policies, had free play. Land speculation, non-recognition of the fact that the use of land in the community is vested with the public interest, and neglect of the long-range view, has led to many abuses in the utilization of urban land. Most of the defects in the physical development of our cities and many of their social and economic ills flow from these causes. We know that misuse and over-intensive use of agricultural land lead to depletion of productivity and erosion, and in the long run a low standard of living. But in the country these consequences befall only the land so abused and those who so abuse it. In the city, however, misuse and over-intensive use of land invites or produces erosion of a different sort, spreads its blight over much larger areas than the land so abused, and causes depreciation, obsolescence, decayed residential neighborhoods, dilapidated business districts and ramshackle industrial sections.

Zoning and subdivision regulations instituted a few years ago in many cities, although a great advance, are of very limited effectiveness at best for checking the abuses in urban land utilization. The eradication of the slums and the rehousing of the low-income families at an acceptable standard, the prevention of unnecessary or premature subdividing and the forming of suburban slums, the providing of more adequate public facilities especially for recreation, the redevelopment of waterfronts and the rebuilding of the basic structure of our cities—all these still await the formulation, adoption and enforcement of land policies that will effectively promote desirable urban development.

Another of the major reasons for the physical maladjustments and deficiencies in our cities is identified in their characteristic basic structural form, the inarticulated mass of their development. The city grows by continuous accretion around the periphery, by adding street on street and house on house endlessly. As the city thus spreads outwardly, its center rises skyward and more completely covers with buildings every foot of available land. The streets and other public facilities and utili-

ties originally provided to serve a development of modest density and height, are no longer capable of handling the load thrown upon them by the immeasurably more intensive use of properties. The balance between the use and the occupancy of private property and public facilities is destroyed. Reduced accessibility, traffic congestion and hazards, overloaded utilities, increased dangers from fire, inadequacy of light and air, are the results. Augmenting public facilities in these central areas is made extremely difficult and lags behind the need because of the enormous cost of acquiring land, the inadequate financial resources of local government and the absence of legal powers or other difficulties to use advanced methods of financing improvements, such as special district assessments, excess condemnation, or the land value increment tax.

Considering that planning as a municipal function is less than a quarter century old, and judging solely by the number of municipalities in which it is now established, planning and zoning seem to have been widely accepted. According to a survey recently by the Urbanism Committee there are at present in the United States, 1073 town and city planning boards of which 933 are official and 84 are unofficial; also 128 zoning boards and 515 cities which have adopted some kind of zoning ordinance—a total of 1716 communities. Although there are many individual instances in which planning has definitely improved and even governed the physical development of communities it is difficult, even impossible, to appraise the total effect of city planning by itself as a preventive or remedy for the physical defects and social ills against which it is directed. This applies particularly to the larger cities. On the other hand, the pronounced success of planning has been demonstrated beyond a doubt by the case studies of 144 planned new communities made by Messrs. Arthur C. Comey and Max S. Wehrly for the Urbanism Committee. These planned communities, largely as a result of planning, were found comparatively free of the physical defects and deficiencies common in unplanned communities. They offer their inhabitants not only a more satisfactory environment but, in a great measure, a more attractive existence.

Although city planning made a fair record on the whole considering its much belated acceptance as a function of local urban government, it has fallen short of expectations and potentialities. To begin with, it is handicapped by the same limitations that obstruct the more effective functioning of local urban government itself. City planning bodies lack adequate legal powers for guiding effectively the physical, social and economic development of the community. They have to struggle against uninformed public opinion and officials who do not appreciate the basic importance of community planning and its influence on community welfare. The planning commission is often looked upon as another "independent board," frequently the newest, and often encounters jealousy and even opposition on the part of administrative officials. Planning

suffers from niggardly appropriations and scarcity of competent planning personnel. In some places though, the fault lies with the planning body itself, because its members lack the interest, the vigor, the courage and the prestige necessary, or have but a limited understanding or an all too narrow view of their task.

In order to be more effective the sphere of city planning will have to be extended spatially and functionally and will have to be vested with legal powers commensurate with such expanded sphere of activities. Unless a county or regional planning agency exists, municipal planning bodies should have jurisdiction over the entire area now urbanized or likely to become urbanized and as much of the surrounding area as bears relationship to the proper development of the community. They should have the same jurisdiction over all public improvements, not alone over those of their own municipal government, but of any other local authority and of the agencies of the state or Federal governments. In addition, their jurisdiction should be extended to facilities of public utilities such as transportation and transit terminals and facilities, which profoundly influence the development of the community, whether publicly or privately owned, and whether or not the proposed changes affect directly publicly owned land or facilities.

Planning bodies should not leave it to the Chambers of Commerce and the industrial departments of transportation companies to shape the industrial development of their communities. They should concern themselves with the intelligent planning of the industrial structure of the areas under their jurisdiction, with the view of enhancing its soundness and stability on which the future of their community will largely depend. Another aspect of urban development to which little attention has been given thus far by city planning agencies is the minimizing of the technological tenuousness of our cities, especially the great cities.

The suggested extension of the sphere of local urban planning and the sharpening of its tools will have to be accompanied by advances in the art of planning itself. Intensive research is needed on many problems and this, in turn, requires more adequate information and data about cities than at present available. The Urbanism Committee's study covered the field broadly, but was necessarily of limited penetration. It cannot be regarded as more than a reconnaissance study. It should be continued either by government or by our universities and research institutions, or by all three collaboratively.

It is time, it seems, that there be established in the Federal Government a *bureau for urban research* that would perform for urban communities functions similar to those which have been performed for rural areas for years by the Bureau of Agricultural Economics and Agricultural Engineering. Like these bureaus, the proposed agency of urban research should cooperate with universities and stimulate research into urban problems by educational and research institutions and planning agencies

throughout the country. Likewise, in order to systematize the periodic and consistent collection of comparable data about cities for use in this research, a *division of urban information* should be created in the Federal Government and charged with the responsibility of coördinating the activities of agencies now collecting urban information, extending the collection of such data in accordance with demonstrated need and of organizing all urban information in a manner most useful in this research. Based on adequate, comparable data the bureau of urban research could undertake the periodic appraisal of the conditions and progress of urban life in the United States, and any city could obtain a more accurate picture of its own conditions in the light of those prevailing in similar comparable communities. *It would be quite appropriate, it seems, for this Conference to request and urge the Federal Government to establish these two agencies for the purposes here outlined.*

CONCLUSION

Our cities are beset by a great variety of serious problems, but some of the most fundamental of these are not peculiarly urban but rather are national in character. Enormous as may be the task of correcting or mitigating their many shortcomings, the abandonment of our cities and rebuilding according to a new and more desirable pattern seems even more staggering, not only because of the cost of scrapping the cities themselves, but because our entire national plant for production and distribution would have to be re-created. Such an undertaking would be beyond the means of a country even as rich as ours.

I do not advocate this solution. It should be recognized that we have submarginal cities, just as we have submarginal rural areas, which will either have to be treated to get back to health, if this is possible, or provision made for the resettlement of their population. But where the community has a sound economic base, its defects, numerous as these may be, can be corrected, I believe, if we really have the will.

It is proposed instead that we admit of having done a bad job in the building of our cities, proceed to actually control henceforth their future development and undertake their judicious redevelopment, in accordance with intelligent comprehensive plans broadly conceived; that we attack boldly the fundamental causes of our urban problems, instead of staying close to the surface and skirting the edges.

URBAN LAND POLICIES*

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THROUGHOUT the United States, as elsewhere in the world, the development of urban communities falls far short of attainable ideals. No city is wholly free from avoidable physical handicaps to the welfare of its present and future inhabitants. Congestion of vehicular traffic, dark and badly ventilated dwellings and offices, the overcrowding of sites and buildings, an irrational distribution of different types of structures, a deficiency in public open space combined with a surplus of vacant private lots, undue concentrations of land values, and unfair apportionment of the local tax burden—in varying degrees there are to be found, in practically every American city, these or other detriments to urban well-being.

Urban growth has been accepted heretofore as normal and almost inevitable. More recently the stoppage of immigration and the slackening of the birth rate, coinciding with a generally desirable centrifugal movement of urban dwellers, have tended towards a vacuum in the older portions of many of our cities. This trend may become even more pronounced with increased economic recovery, as tenants will be in a better position to abandon decadent neighborhoods. New methods of transportation have made unprecedented urban decentralization possible. Our outmoded street systems and the interior planning of our cities have not, however, been changed to conform with the new mobility. Nor have the legal and economic controls of land tenure and use kept pace with modern requirements. These conditions have been among the factors which have produced blighted areas and slums, premature subdivisions, and jerry-built potential slums.

These plights of our cities are commonly ascribed to the unbridled exploitation of land by private owners. But in fairness the blame cannot so simply and definitely be fixed. Indeed, candid analysis must place the major responsibility on our lack of urban land policies and on the consequent failure of our public bodies to afford to private owners and developers adequate opportunities for wise and profitable land uses.

It is the guidance and protection rather than the restriction of land users that needs major emphasis in the formulation of land policies for rational urban development. For every landowner who wishes to exploit his property to the detriment of his neighborhood or community, there are hundreds who desire to be safeguarded against such anti-social uses. But where *community protection* is lacking, it is quite natural for the average property owner to try to secure, in self-protection and at the expense of his neighbors, advantages which they might otherwise secure at his expense.

*See footnote on p. 373.

To the absence of sound, long-term city planning, and of enactment or enforcement of adequate zoning ordinances and building codes, must be ascribed much of the blame for the deplorable housing conditions existing throughout the country and for the speed with which new housing accommodations deteriorate. Responsibility must be placed also on our inefficient methods of assessment and unscientific systems of taxation of real estate.

Urban land policies cannot be fitted neatly within the legal boundaries and powers of cities, as the sole concern of the municipality where the land is located. It cannot be doubted, for example, that the growth and welfare of very many individual cities in the near future will be profoundly affected by recent nation-wide population trends, by changes in methods of production, transportation and distribution, and even by national policies with reference to interstate commerce, tariffs, and international relations. The chief problems affecting the ownership, transfer and use of urban land are, therefore, not merely problems of local public opinion and legislation, but are intimately related to state and national constitutions and laws and to other factors even more difficult to control. The contingency, however, that uncontrollable forces may wreck a city is no excuse for neglect of the controllable forces which may save the city.

Once its areas are subdivided into the wrong kind of streets, blocks and lots, a city will be permanently burdened with some or all of these mistakes. The difficulty here has been our past failure to appreciate the essential dissimilarity of land and the products of human labor—the extent to which the marketing of new lots requires restrictions far different from those applicable, for example, to the marketing of new potatoes. We now know differently; but lack of adequate control of the planning, sale, and use of urban areas has involved financial and social costs to our cities of staggering amounts. Bitter experience is demonstrating that the great American game, *gambling in land values*, instead of being an innocent business venture or a speculation of concern only to the private individuals who play the game, is too often a public tragedy, financial and social, with most of the losses underwritten by the general public. How best to regulate this game, with justice to legitimate and socially useful business interests, is one of the most important and difficult of civic problems.

In current attempts to rehabilitate slum areas, the chief problems center around the cost and financing of such endeavors and the difficulty of assembling areas adequate for large-scale developments. Owners too generally base their claims for compensation on the unwarranted assumptions that population will grow and business expand in the future as in the past. Meanwhile, rational development is prevented by the high land prices, and property stagnates. The deflation of these excessive costs is a fundamental concern in many cities, as are also the right to utilize eminent domain and acceptable procedures thereunder.

Street and highway location and design, as factors affecting land uses, need much more consideration than heretofore. By proper layout and spacing of major and minor thoroughfares, locations can be marked definitely for future development as residence, business, or industrial districts; and such mistakes as the location of schools, libraries and hospitals on through traffic streets can be avoided. For the widening of narrow streets, the use of building setback lines is a device too little employed.

By advance planning, rational zoning and the reservation or location of public facilities in advance of need, not only qualitative but also quantitative control may be realized. In almost every city there is need for new land-use studies and traffic surveys as bases for replanning, rezoning, and rehousing, and for the determination of reasonable land values.

Practically all existing zoning ordinances and building codes need modernizing to prevent future land-overcrowding and to provide more adequate space and safeguards for residential and recreational areas and structures. Specific needs include more effective limitation of the height and bulk of buildings, and better regulations affecting setbacks, towers, and the size of courts and yards, which have seldom been formulated with adequate consideration to the laws of natural illumination.

On the one hand, existing zoning regulations are so elastic as to permit in many instances the continued extension, even within the protected zones, of the very conditions which zoning was intended to remedy; on the other hand, the less restrictive zones are so large that much of the city's area is not protected against out-of-place building. Not only do the regulations need to be improved, but the zones, too, should in many cases be adjusted more accurately to reflect existing conditions. That these mistakes are especially prevalent in the earlier ordinances is traceable in a large degree to the fear, very general at the time, that the courts might frown upon regulations and zones which admitted comparatively little latitude to the builder. Now that the courts have sustained the constitutionality of zoning, no justification exists for longer deferring the adoption of adequate regulations and zones for the protection of present and future development.

Even retroactive zoning has been sustained in some court decisions, and the time may have come for a concerted effort to rid residential districts, over a period of years, of non-conforming uses.

The building and maintaining of well-planned neighborhood units is an essential of rational urban development. To insure stability, the neighborhood unit should be as nearly self-contained as practicable, providing for common interests binding the population together and maintaining a desirable residential environment.

The suggestions for improvement include: (a) action by official agencies, such as public slum reclamation and housing authorities; (b)

the use of incidental or excess condemnation as a tool which will facilitate rehabilitation; and (c) group action initiated and executed primarily by the owners and others interested in specific areas. We recommend that efforts for the rehabilitation of slums and blighted areas be turned from debate into action, and that experiments along all three of these lines be undertaken promptly.

Land for housing, green belts or wedges, or for other municipal purposes, should be acquired gradually over a long period. A municipal real estate department, such as is found in a few cities, guided by a comprehensive plan for the city, indicating the amount and approximate location of land needed for all public uses, could appear as a party whenever land was offered for sale and buy suitable land when the price was reasonable. Tax-delinquent property could be taken over and managed by the city. By trading parcels with private owners, scattered holdings might be consolidated and large assemblies be made, with resort to eminent domain only in the case of key plots.

Recent studies have shown the serious weakness of the common type of zoning ordinance, in permitting degrees of urban congestion which ought not, and indeed cannot, ever be realized. In almost every city large numbers of lots on which such congested development is legally possible remain idle year after year—to the detriment of the community, which obviously would profit if every acre of its site were at all times put to some socially beneficial use.

This does not mean, of course, that the best ultimate use for every acre of urban land can immediately be found. But it does call for recognition of the social and economic wastes involved in unemployed land, even though fairly assessed and not tax-delinquent. For land as well as for men, useful jobs, whether temporary or permanent, are much to be preferred to unproductive idleness. A most urgent urban need, therefore, is to devise ways and means for bringing into at least temporary public use all urban land which the community could use to advantage and for which private initiative cannot promptly find desirable uses. Under such public ownership or control our cities would speedily be supplied, more adequately than ever before, with neighborhood parks and playgrounds, public golf courses, allotment gardens, parking spaces, artificial lakes, town forests, improved waterfronts, tennis-courts, swimming-pools, and other opportunities for recreation, culture and esthetic enjoyment.

Nearly all modern ideas of both low-cost and medium-priced housing revolve around the notion of large-scale operations, neighborhood units and community planning. The fulfillment of these ideas requires the acquisition of large tracts of land, which, as already pointed out, can generally be assembled in desirable locations only with much difficulty and expense. Cities, therefore, should be encouraged to acquire gradually adequate areas of land suitable for housing both within and outside the city limits.

Land on reasonable terms would then be available for housing projects, public or private, in times of depression or housing shortage; publicly owned land could serve as a "yardstick" for site costs; by withholding land from the market in boom times, excessive building could be discouraged; more effective zoning and architectural control would be possible; and by checking uneconomic expansion, substantial economies would result in the public provision of parks, highways, transit lines, schools, utilities, etc.

If such lands, however, are acquired under the limitations imposed by present policies, the costs may often prove prohibitive for the municipality, and cause inflated speculative prices which will be harmful to private development. Such handicaps may be largely obviated by the application of the changes in acquisition policies and in methods of taxation recommended elsewhere in this report.

In order further to control city growth, provide breathing spaces and recreational areas, and promote the development of satellite towns, it is desirable that cities acquire or zone, wherever possible, green belts of recreational, agricultural and forest land surrounding their built-up area.

Unless our state and municipal governments have the foresight and the courage to adopt rational land policies, the alternative might conceivably be a growing demand for the *complete* restoration to the people, as a present rather than an ultimate reality, of the land-ownership which, in the Constitution of the State of New York for example, is guaranteed to them in the clause which declares that:

"The people of this State, in their right of sovereignty, are deemed to possess the original and ultimate property in and to all lands within the jurisdiction of the State."

The authors of the report on Urban Land Policies are not prepared to accept as conclusive the case for the public ownership of *all* urban land. They do believe, however, that the time has come for a nationwide acceptance of the facts that the tenure and use of urban land are matters of urgent concern; that a larger measure than heretofore of public ownership of land, and of protection of socially beneficial private uses, would be in the public interest; and that orderly—and, in some cases, quite speedy—reform is essential to the well-being and future progress of our American municipalities. Among readers of this report there surely will be general agreement that there is no inherent natural right for any individual to claim inalienable ownership or uncontrolled use of a section of the earth's surface; and that in a democracy that system of land tenure and taxation ought to prevail which will confer maximum public benefits with minimum private burdens.

*From a paper read at the National Planning Conference in Detroit, June, 1937, in which Mr. Buttenheim summarized some of the principal facts and recommendations which will appear in the section called Urban Land Policies in the forthcoming report of the Urbanism Committee of the National Resources Committee.

THE URBAN MODE OF LIFE*

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IN THE establishment of its Urbanism Committee the National Resources Committee apparently for the first time in our history has given overt recognition to the fact that cities are an important phase of our national life. They have acquired such a central place in the lives of our people and in the activities of government that they can no longer be left out of account in any effort to deal realistically with the nation's problems. It is especially important to consider the city in national planning activities because planners tend to approach their task with a characteristic emphasis upon land and the physical structures that have superimposed themselves upon it. The rise and the phenomenal growth of the city, however, have progressively complicated the relationship between man and the soil, so that the actual problems of human social life involve an increasingly indirect nexus between human welfare and the natural resources. Typically in the modern age the difficulties of social adjustment are less and less to be understood in terms of man and resources alone, but must increasingly reckon with the patterns of life that have already developed out of previous efforts at adjustment; i. e., with the technology, the habits, attitudes and ideas, the customs, rules, laws and social structures, in short with the web of social life that has been generated in the course of historical development. The planner no longer confronts the simple objective of adjusting man to the natural habitat—which was really never the case—but of adjusting man to man through the manipulation and guidance of a whole complex of factors including among many others the physical environment. It is not that the land is no longer important, but rather it is that we can no longer effectively deal with the land directly and independently. If we would deal with it at all, or if we would use it as an instrument in the enhancement of human welfare we must not overlook the complex technological and social superstructure through which it has been modified and which limits and conditions our use of it.

It may seem strange to some of us that in our governmental activities and structure and especially in our fact-collecting and research activities such an overwhelming emphasis has been laid upon agriculture and rural life, and so little attention has been paid to the city and urban life. This may in part be due to the fact that the interests of rural life are fairly coterminous with agriculture, but the interests of urban life are not coterminous with industry as apparently has been naively supposed. While the city is characteristically the industrial workshop of mankind, the interests of the city dwellers are by no means covered by industry and commerce alone.

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

One historical fact that may account in part for our relative unawareness of the significance of the city is that the United States has been urbanized so recently. When the Nation was founded and the framework of its government was shaped the United States did not have a single town with even as many as 50,000 inhabitants, not until 1820 could it boast of a single city with over 100,000 and not until 1880 of one with a million. As late as 1870, 52.8 per cent of American workers were still engaged in agriculture and almost until the World War we were still considered a country that produced agricultural products and raw materials for the world market. The transition from a crude and simple handicraft and agricultural economy to a highly advanced and complicated industrial society has been accomplished so recently that some time will elapse before we can give due recognition to the new basis of our national existence in our governmental organization, functions and outlook. The great depression did something to shock us into an awareness of our newly acquired status as an industrialized and urbanized nation.

Aside from the recency of our industrialization and urbanization it is the enormous rapidity with which these changes have proceeded that has left its imprint upon our contemporary life and is responsible for our failure to devote serious attention to the urban phases of our national problems. Fifty-six and two-tenths per cent of our population lives in urban places, nearly 30 per cent in cities of over 100,000, and almost one-half either in or so close to cities over 100,000 that for all practical purposes their life is urban. Only 21.3 per cent of American workers were gainfully employed in agriculture in 1930, while the overwhelming majority live and make their living in industrialized and urbanized communities. While the countries of Europe that came under the magic spell of modern technology grew into their present urban stature gradually over a period of several centuries, this country took the leap from frontier agriculturalism to mature urbanism in the course of a few decades. This unprecedented speed of change in our mode of living and making a living may help to explain our staggering problems, our appalling disorder, our abysmal ignorance and our blithe apathy.

The geographical frontier that in our national history has always lain to the West has suddenly disappeared; the new American frontier is in the city, for it is here that the significant changes in our life are being wrought and it is from there that they will reverberate throughout the land. It is not merely the people who actually live within the boundaries of the legal defined municipality that have their mode of life determined for them by urban civilization, but those beyond the geographic limit of the city boundaries as well. The city has become the dominant influence upon national life. It is both symbolic of modern civilization and the principal medium through which the mode of existence of mankind is being remolded.

The inferences and interpretation that we draw from existing facts about cities must be qualified in two principal directions. First it is important to recognize that existing data about cities for the most part give a picture only of the city proper as if the conditions of life prevailing in cities stopped abruptly at the city limits. It needs no elaborate argument to prove that this is not so. Especially in our great cities it is apparent that a large proportion of their inhabitants, by virtue of the fact that our Census enumerates the night population rather than the day population, are to be found in the suburbs and satellite settlements which are economically and socially an integral part of the metropolis although legally a thing apart. The seeming loss of population of our central cities to the suburbs on the peripheries is merely an instance of the characteristic way in which cities grow, namely by emptying their population at the center. As the residential telephone directory of Manhattan grows thinner the suburban telephone directory gains in bulk. It would give a false picture of cities, therefore, to interpret the facts about them as if each city that is a legal unity were also an independent economic and social entity. Secondly it is important to make allowance for the enormous variation in the conditions of life both within and between cities. The 3,165 urban places which the United States Census records are obviously not all alike. There would be few generalizations one could make about all of them that revealed significant uniformities. Our cities differ from each other not merely in size (from 2,500 to several millions of inhabitants and from a few blocks to many square miles in territory) but in age, rate of growth, location, function and in countless demographic, economic, governmental and cultural respects. Similarly, although American cities tend to follow a typical pattern of internal structure which we have described in the report of the Urbanism Committee, there are enormous variations in the character of life in the various sections of the city. Indeed, it is one of the outstanding features of the urban scene that it exhibits wide variations and glaring contrasts.

Despite the striking variations between cities and between the different component parts of each city, there are clearly distinguishable differences between urban and rural ways of life finding expression in different technologies, economics, social organizations and institutions, personalities, and biological, technical and social problems. Historically the country and the city represent different stages of civilized life, contemporaneously they reflect the two poles of social existence.

Urban life is significantly conditioned by the characteristics of the population. Cities contain a larger proportion of persons in the prime of life, while the country has more old persons and children. Women outnumber men in cities, generally speaking, although the largest cities which have been the beneficiaries of immigration from abroad, industrial cities, and the frontier cities of the West represent exceptions. Cities have always been regarded as the melting pots of races and cultures,

and American cities, as might be expected, exhibit this function to an extraordinary degree. Not merely the European immigrant, but in recent decades the Negro has flocked city-ward and given the American cities their striking ethnic heterogeneity.

Throughout history cities have been known as the consumers of manpower produced in the country. One of the most striking facts about the urban population is its failure to reproduce itself. Even though the enormous death rate characteristic of cities before the industrial revolution and before the introduction of modern forms of food, and water supply and sanitation has been considerably reduced until it is only slightly higher than the rural death rate, the cities must still rely for the maintenance and growth of their numbers upon the rural areas. Urban women, whether native, foreign-born or Negro, have fewer children than rural women, and the larger the city the lower is the rate of reproduction. Obviously those who see some virtue in numbers have reason to feel alarmed especially in view of the fact that the urban pattern of life is rapidly becoming diffused among the rural population as well. But the planners might have cause for rejoicing for they can look forward to a more stable population base.

The low urban reproduction rate suggests that the city is not conducive to the traditional type of family life. Industrialization, education, insecurity, the appetite for a higher standard of living and the physical crowding under urban housing facilities are among the factors which discourage marriage and the rearing of children and encourage family disorganization. Mothers are more likely to be employed, lodgers are more frequently part of the household, the traditional family functions are given over to agencies outside the home and each individual member of the family is more inclined to lead his own individuated existence. In these respects the suburban community resembles the rural areas more closely than it does the city.

To mention one case of the need for caution in generalizing about cities I shall cite some facts about health. In recent years cities have rapidly improved in public health facilities. Since 1929 the urban mortality rate has fallen below the rural. Urban health controls are responsible for bringing the urban mortality rates from influenza, smallpox, malaria, and dysentery below the rural rates, although the urban rates for venereal disease, tuberculosis, epidemic diseases, alcoholism, drug addiction, insanity, heart disease and suicide exceed the rural rates. Cities as a rule not only have more and better private medical services but spend more on public health facilities than do rural areas. Nevertheless, under the present distribution of income, the vast majority of the population, both urban and rural, is not in a position to obtain the accessible services and is incapable of meeting the financial burden of illness individually. The physical risks to which urban life exposes the population, coupled with the fact that disease is no respecter of per-

sons, makes the democratization of health facilities an urban necessity.

What has been said about health applies equally to education, public welfare, recreation and to other aspects of urban life. As a rule cities, in the aggregate, differ from the country, but there are often greater differences between cities of different sizes and types than between city and country. Similarly, the differences between the various sections of the same city often exceed those between cities. Moreover, no general class of phenomena or problems such as health, safety, and welfare can be compared precisely as a whole. Each of them must be broken down into more minute units for purposes of analysis.

The great city of today rests upon a technological base in which steel and steam have played a preëminent rôle. Free individualistic enterprise whose essential elements are competition, credit and speculation furnish the economic counterpart to this technological base. The concentrative force of steam has herded large aggregations of workers into gigantic industrial plants which have been brought into existence through corporate enterprise. This tendency has not as yet been markedly mitigated by the potentially dispersive force of electricity. The economic opportunities created by industrial and commercial establishments have served as a magnet attracting the young potential workers from near and far. The minute division of labor accompanying the displacement of the simple economic society cumulatively resulted in ever sharper differentiation of occupation, income and status. Generally a larger proportion of the adult urban population is gainfully employed than is the case with the adult rural population. This applies to men as well as women, but not to children. That these are specific characteristics of contemporary urban life is indicated by the fact that the larger the city the more prominent these features are found to be. The white-collar class, comprising those employed in trade, in clerical and professional work, are proportionately more numerous in large cities and in metropolitan centers. While the city offers a greater range of vocational opportunities it also undermines economic security by reducing the span of the working life and by discouraging self-employment.

The incomes of city people are on the average higher than those of country people. The larger the city the higher the per capita income, but the more industrialized the city the lower the income. No direct correlation between size of city and living costs can be established, but the cost of living seems to be highest in the largest cities. Home ownership is rarer and involves greater burdens in the city than in the country and in the large cities as contrasted with the small. Rents are higher and absorb a larger proportion of family incomes as city size increases. Urban families spend a larger proportion of their incomes for clothing, recreation and advancement and a smaller share for food than do rural families of corresponding income levels. While the urban dweller has the benefit of many communal services which the rural dweller must provide

for himself or do without, he does not have that margin of subsistence to fall back upon which might mitigate the severity of his lot in time of personal disaster or economic crisis.

On the whole urban existence involves a much greater degree of interdependence between man and man, a much more fragile and complicated web of technical and social relations depending upon the smooth functioning of a complex and delicate apparatus than does rural life.

Urban life as we have seen it develop thus far in this country—and it is still in process of evolution—exhibits three phases of a still incomplete cycle. It first uproots the rural migrants from their personal relations and folk traditions, and atomizes their life. This reduces social control to a formal and elementary level where great heterogeneous masses are held together merely by the division of labor, an intricate technology, ruthless competition and manipulable slogans. But the mere complication of urban life, involving similar interests, similar risks and dangers and communal crises tends to mold the urban population into a new community in which common objectives, rational programs and intellectual leadership emerge.

There are some tender-hearted, if not tender-minded, romanticists who seem to be so gravely affected by the staggering problems of urban living that they seek to escape from the city or even advocate its destruction. But escape is possible for only a few individuals and for them only partially or temporarily, for the lure of the city and its great cultural advantages is virtually irresistible.

But even conceding that a few can find refuge in pastoral pursuits or in "rurban" settlements, and admitting that our cities, especially our metropolitan super-cities, could be loosened up considerably in the interests of economy and livability, it is idle utopianism to assume that human satisfactions could be increased by dismantling our cities. We could not possibly hope to enjoy some of the most cherished advantages that we have come to regard as essential ingredients of modern civilized life without great cities. In the interests of the millions of people who live and work in our cities and of the advancement of our national life a nation-wide program designed to make the cities better fitted as dwelling places, workshops and cultural centers and more effective mechanisms in the national economy is urgently needed. In these tasks the planners have a significant function to perform.

PLANNING AND URBAN GOVERNMENT*

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A CITY plan is dependent upon every branch of the City Hall for its final fulfillment and its actual administration. Consequently, as far as planning at City Hall is concerned, if we expect to administer the plan we must plan to administer.

Now, with reference to the administration of urban government, what are the outstanding facts which the planners of this country may want to bear in mind?

1. Planners cannot escape the fact that urban government has become one of the nation's major industries and it therefore ranks with the nation's network of manufacturing enterprises whose factory-sites and even labor supplies the planner has not hesitated to concern himself with. Urban governments in the United States employ one and one-fourth million persons, who constitute one-third of all the public employees or one-thirtieth of all gainfully employed persons in the country. Urban government, moreover, spends annually some four billion dollars which is one-third of all the governmental expenditures of the country and represents about one-twelfth of the total national income. The long-range planner certainly cannot afford to disregard the operation of this vast slice of the national economy.

2. Locally as well as on a national scale, the City Hall plays perhaps a major rôle in the entire community. It is at City Hall where questions of the city's population and industry, its business and transportation, its health, education, crime, and recreation, are ultimately translated into social policy and administrative action. The urban governments of the United States perform those essential public services without which its concentrated urban centers, containing the majority of its citizens and the bulk of its enterprises, could not continue to exist. They provide water, dispose of sewage, prevent epidemics, guard public health, protect life and property, control traffic, and regulate and facilitate trade and industry. Over the long span of years, city services have become the public utilities of the community. Municipal water supply has undergone an almost complete change from private to public ownership since the Civil War, and now even the supply of electricity is again witnessing a revival of municipalization. These are the services which constitute the going community, and planners, even if they persist in drawing up plans for only the physical plant of the city, can disregard these growing municipal services no more than they can neglect industry and urban transport.

3. The planner cannot escape the intimate relationship between his city plan and the entire City Hall, especially as cities recognize the

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

importance of continual planning. The planner may learn to his dismay that the viaduct project so dear to his heart and so essential a link to his entire plan falls through because the city finance officer possesses some strange power over the capital budget. That residential zone upon which his heart was so set gets into the courts and if only he could get the city attorney to tell the judge what was so thoroughly understood by himself but cannot as easily be put in the form of a legal argument. Thanks to the civil service commission, he is able to obtain the services of a good highway engineer who fortunately is a tactful local boy capable of handling the "resisters" in the highway department. But then, that large bridge which had been worked out on the basis of extensive data was, think of the nerve, actually closed to traffic for a time by the police because it did not suit their traffic plans. Then, tan their hide, the building department still hasn't got the whole idea about enforcing the demolition ordinances. Worse still, the health department now informs him that the noxious odors in Pig Iron Creek behind his favorite new housing project cannot be abated because the industrial waste section of the sewage department is not sure it has proper legal authority to proceed. Putting the plan into operation may not be the planner's job, but he cannot escape a few sleepless nights when these unforeseen governmental tangles cripple his plan.

4. Planners are thus also interested in the powers the city may exercise in putting the plan into operation. About one-third of the cases involving the 10 major classes of municipal powers which have come before state and Federal supreme courts in the past 20 years are cases in the general field of building regulation and zoning. Moreover, while the city generally loses only one out of three cases concerning municipal powers, the planner will find that in cases involving his functions the city loses every other case. The planner, therefore, has reason to be interested in, if not dissatisfied with, the range of powers granted to cities for planning and related functions either by courts or state legislatures.

5. If the planner is disgruntled because the administrative mechanism of the city does not enforce his plan readily enough, perhaps he will find some encouragement in learning that on the whole, the machinery of urban government has been undergoing one of the most extensive transformations in our national life. The organization of city government has in the past few decades been growing more unified and coordinated through the concentration of executive responsibility in a single municipal executive either of the traditional mayor type or the rapidly spreading city manager type. Urban governments have experimented with and have made wide-spread use of such administrative devices as executive budgets, central purchasing, and central registration. They have pioneered with some of the country's most dramatic mechanical devices and scientific techniques, including traffic signal lights, police radio broadcasts, sewage treatment processes, epidemiology, lie detectors, voting

machines, and parking meters. Structurally and technically, then, contrary to opinions widely held, urban government has witnessed a development comparable to, though less heralded than, the growth of the nation's private corporate system and industrial machine.

6. If the planner further grows impatient because the government's servants rather than its techniques seem to be at fault, he will be further interested to learn that as a whole, city employees and officials are developing those skills that are essential for the responsible operation of their rapidly growing functions. The expert for years now has been displacing the untrained amateur in key positions in the City Hall. Tenure in the ranking administrative and technical posts has become more secure. The irresponsible urban boss of the previous generation is extinct today except in a handful of cities. A whole series of advanced personnel devices have developed including standard classification and salary plans, pensions, efficiency ratings, in-service training and non-partisan elections. Selection through merit examinations has begun to displace the rampant spoils system through the establishment of civil service agencies in 38 per cent of our cities over 10,000, thus affecting 80 per cent of the municipal employees of the country.

7. The planner's suburban and regional problem seems less hopeless as he studies what cities have done in the field of metropolitan government. To be sure, the 96 metropolitan districts of the country, containing 55 millions of people or 45 per cent of our total population, are ruled by bewildering layers of independent and overlapping authorities including suburban and satellite cities, counties, townships, school districts, sanitary districts, park districts, utility districts and even mosquito abatement districts. However, cities and their village suburbs together with their overlapping counties, though they have resisted annexation and consolidation, have not hesitated to coordinate services in functions where in the past they have been most jealous of their autonomy.

8. Even on a national scale we are witnessing an organized movement for municipal reconstruction and this is tied up with the planning movement itself. For a generation or two, cities throughout the country have been exchanging facts, ideas and programs, through their national associations of public officials.

The city plan, then, cannot be separated from the City Hall. In a sense, city planning and the replanning of municipal government in the United States is one and the same problem. For only by means of a planned system of administration will urban America achieve what city planning itself ultimately seeks to achieve: a coordinated administration of local services and a well-rounded municipal life. Only by planning to administer are we going to be able to administer our plans.

"OF THINGS TO COME"*

MILLER McCLINTOCK, Director, Bureau for Street Traffic Research,
Harvard University

LESS than half a century ago the automobile made its appearance upon the American scene. In all of the history of civilization there has never been a comparable development. In the space of a generation a great nation has become motorized, fundamentally changing age-old habits of transportation. No phase of human existence, economic, social or political, is untouched by this phenomenal development.

This movement may be aptly described as the automotive revolution. It universally applied power to the machinery of distribution just as its technological counterpart, the industrial revolution of a century earlier, applied power to the machinery of production.

Notwithstanding the universality of the motor-car in America today, it is still largely a foreign and unassimilated substance. Whether it will continue surrounded by malignant growth or develop into a pearl of great price will depend primarily upon the vision, initiative and boldness of American planners and highway engineers. We should remember, however, that these men can accomplish nothing without aroused public opinion and support. Therein lies the historical significance of the Automotive Safety Foundation. It can supply this support just as the leaders in this industry supplied the impetus for the good roads movement a generation ago.

For two decades the implications of automotive transportation have been clear. To the security of the life and limb of the normal citizen the automobile is hazardous and increasingly so. To the efficiency in the transportation of man and his goods the automobile has brought unprecedented values but, by the mere weight of its numbers and by maladjustments in facilities for its use, only a small fraction of its efficiency is available today.

We cannot look with equanimity upon a transportation mechanism which takes an annual toll of 36,000 lives and more than a million injuries, nor can we, in this mechanized age, look with tolerance upon the shackles which fetter this newest servant of mankind. For many years we have been hopeful that, through some conversion of man's attitude, we could bring him to a more intelligent use of his automobile; that, through rules and regulations backed up by punitive sanctions, we could force the anti-social individual into a recognition of his responsibilities; or that, through the application of mechanical control devices, some semblance of safety and efficiency might be achieved. These efforts have been intelligent, sincere and not without valuable results. They must continue and on a greatly increased scale. A broad review of the entire problem must, however, force one to the conclusion that there are basic

*A paper read at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

maladjustments in automotive transportation which will never yield to palliatives but can be cured only by major surgery.

It would be difficult to conceive of any mechanism less well adjusted to its function of carrying traffic safely and efficiently than is the standard street system of any American city and much of our highway system. Our physical facilities have inherent frictions which are the primary cause of our current "stop-and-go" traffic problems. Unless these frictions are removed the future development of the American city and, for that matter, of general land use will be distorted, and automotive transportation will continue with a high level of hazard and a low level of efficiency. This analysis is not criticism of past or current activity on the part of planners or engineers. It is merely, today, a recognition on their part that the street and highway systems of the nation must be rebuilt if the automobile is to be used efficiently just as they originally recognized that hard roads were necessary if the automobile were to be used at all.

The controlling principles now generally recognized dictate the details of the plan and pattern for traffic of the future. Where possible, opposed streams of traffic must be physically separated, the roadway margins must be protected from obstruction and interference, intersections on major streets and trunk routes must be provided with grade separations and, within the streams of flow, provision must be made for a segregation of functionally different types of movement. The entire history of automotive design has been to create a vehicle that would operate under conditions as they are. You have done your job well but the ceiling has been reached. Now the conditions should be made as they should be, adjusted to the perfections and inherent potentials of the motor car. By analogy, our urban areas must be provided with rapid transit facilities for automotive traffic just as, in the past, the major cities have been provided with rapid transit for mass carriers. Indeed, with present trends in mass transportation, there is definite reason to believe that the provision of such facilities may bring a much closer correlation, if not an actual identity, as between the facilities for general traffic and for mass transportation traffic.

These basic adjustments in our street and highway system will inevitably have broad effects upon the character of the city of tomorrow. It will be an automotive city. In its provisions for the safe and orderly movement of persons and commodities, it will make possible, for the first time, the full benefits of the automotive revolution and, concurrently, will become in all of its arrangements and functions a city of which prophetic planners have dreamed.

Not the least of these prophets is that master of functional shape and form, Norman Bel Geddes. Inspired by the seriousness of the automotive problem as it retards human and social values today and stimulated by the available principles for reconstruction, he has looked over the horizon of today to glimpse the automotive city of tomorrow. You may be



Woolworth Building and well-spaced skyline of 1960 as envisioned by Norman Bel Geddes.
Express highway and turnoff in foreground

Photograph by Richard Garrison



The City of the Future, with buildings 1,500 feet in height surrounded by open areas.
Different highway levels insure freedom and safety

Photograph by Richard Garrison

interested in following him for I am privileged to preview for you the concrete projection of his vision. This is with his permission and with that of the Shell Oil Companies whose interest has made his work possible.

So from a great height and out of some coming dawn a city takes form below you. Improved facilities for mobility have made it possible for future builders to achieve maximum efficiency in human relations through even greater concentrations of building mass than would be dreamed of for today. Buildings of 2,000 feet in height are not exceptional and each accommodates entire economic or professional units.

But, concurrently, this very concentration has made possible the achievement of open areas filled with free air and sunshine, a goal for which every socially minded planner has been striving. Health, serenity, order and beauty are the objectives of the builders of the new city.

The structures, themselves, whether they take these forms conceived by Norman Bel Geddes or other forms, are designed not only for efficiency within themselves but for a maximum utilization of the advantages of their surroundings.

Grouped together at the natural focal points of traffic, transportation and terminal facilities, are those groups of buildings providing for intimately related activities.

The entire city, in its various functional parts, is tied together by provisions for communication of varying capacities according to actual needs, and local areas, themselves, are provided with facilities for freedom of movement as between buildings in the same area. People are able to move between buildings with the same convenience, in so far as traffic interference is concerned, as they are within single buildings.

But the new city is not careless or intolerant of the older racial customs and habits. They are integrated in the mass and the form of the new city. For a concept of scale you should know that the edifice in the ecclesiastical plaza is an accurate reproduction of the Cathedral of Notre Dame of Paris.

All of the land uses are so arranged and interconnected that man, as an urban animal, for the first time in centuries is able to use his oldest form of transportation—walking—with some degree of security and dignity. No longer is he required to fight his way across roadways filled with uncongenial vehicles. He moves on his own level raised above the flow of vehicular traffic.

Terminal facilities for transportation, serving the suburban areas and more distant areas, are strategically located at natural points of origin and destination and these, in turn, are interrelated with distribution systems serving adjacent needs. Near-by airports serving continental and intercontinental lines are connected by direct limited way routes.

Primarily, however, the internal and external transportation of the city of tomorrow is automotive, not because of spectacular developments

in either private or mass transportation units but, rather, through the provision of facilities for the efficient use of the inherent potentials of automotive equipment. Internal storage facilities are a natural, integral part of every building.

Emerging out of the future, a major automotive route—a limited way, as Norman Bel Geddes conceives this route, will be elevated in character, although it might, with equal efficiency, be depressed. The essential point is that, whether elevated or depressed, it provides for an elimination of those four types of friction which were inherent in the surface street systems of the old city and from which all accidents and all congestion arose.

Naturally, such major constructions are not provided for every street. This is too costly and, likewise, unnecessary. The city of the future is provided with a grid of limited ways so that all parts of the city are conveniently served. Distribution to areas within the grid of limited ways is by means of streets not unlike those of the old city except that there is no pedestrian traffic. This is raised to an upper level along the streets and bridging the intersections.

Where these great limited ways intersect, their levels are separated, one passing over the other. Thus, intersectional friction which was the major cause of congestion in the old city is entirely eliminated. Consistent speeds materially higher than those on the old open highways are possible with complete freedom and almost complete safety.

Provision is made for interconnection between the various limited ways so that direct routing is possible to normal destinations. Connection between the limited ways and the surface pattern of streets is by means of conveniently located ramps.

The plates of Norman Bel Geddes show the practical artist's concept of how now available engineering principles may serve to shape the growth of a future great metropolis. Do not be misled, however, into thinking that these principles are useful only when applied in gigantic scale. The same principles in lesser scale are equally applicable to smaller communities. Nor should one assume because of a view so far into the distance that these same principles are not practically applicable today. Frank T. Sheets, a leading highway engineer, estimates that it may cost as much as 57 billion dollars to rebuild the street and highway system over the next quarter of a century, but every penny can be liquidated in 43 years through economies and current automotive revenue. There is less difference between the dream of tomorrow and the practical accomplishments of today than one might imagine.

Let us turn back to our own days. We find the world's most modern metropolis of 1937, sufficiently like the vision of the city of tomorrow as to forecast its shape and form. Down in its busy streets one finds, however, not order but chaos. The automobile and all forms of transportation are reduced by confusion and congestion to a pathetically low

degree of efficiency. Automobiles, capable of carrying their occupants safely at high rates of speed, are forced to crawl at a snail's pace (if, indeed, they can move at all) with resultant inconvenience and hazard. In its appearance, however, the city of today begins to forecast its successor. The cathedral-like tower of Radio City belies its bulk.

In the distance one may see another prophetic form, the Empire State Building. These structures and their successors could not exist without traffic and transportation facilities. The efficiency of their use and their untrammelled development, together with all of the other facilities of urban life, must depend upon the capacity of the future planner to provide them with a flow of persons and commodities. This will be done.

The planners and engineers of today now recognize the full implications of the automotive revolution and their present works give hope for a speedy elimination of many present-day maladjustments. The cloverleaf design forever eliminates the causes of congestion and hazard at important crossings of trunk routes. Again, in the so-called "Traffic sorter" of the Triborough Bridge of New York City, one sees the ingenuity of our engineering colleagues in designing traffic facilities not only for utility but for beauty as well. In the New Jersey approach to the George Washington Bridge, itself a monument to engineering daring, one finds all the elements of plan and design which may be expected in major routes of a coming city.

In the Outer Drive in Chicago, winding from one man-made island to another, one finds an almost ideal combination of traffic efficiency, safety and beauty. Daniel Burnham did dream no small dreams and inspired his city to continue to dream.

Los Angeles carries one of its great major streets through a mountain-side in tunnels and open cuts which, with its efficiency, has a beauty that would do credit to Norman Bel Geddes.

St. Louis, too, builds for the future in its super-express highway which carries traffic safely at open highway speeds through the heart of the city.

San Francisco is justly proud of each of its two great bridges. The \$77,000,000 trans-bay Oakland Bridge, which for sheer size is breathtaking, inspires one to believe that the dreams of the future may not be so impractical as they might appear.

Less inspiring in its beauty but no less so in its utility is the West Side Elevated Highway in New York City carrying 35,000 to 40,000 vehicles per day at safe highway speeds over what has long been known as "Death Avenue." In an humble way it forecasts its prototypes.

WHY PLANNING?*

CHARLES W. ELIOT 2d, Executive Officer, National Resources Committee

WE ALL plan—we try to look ahead, to think of eventualities for ourselves, our families, our business, and sometimes even for our common welfare. We get an “estimate of the situation,” as our military friends put it, involving more or less conscious research and appraisal of the facts. We think we might do this, or we think we might do that to meet a given situation. That is rudimentary planning. We develop a plan or alternative plans. If we are wise, we look before we leap. Planning is using our intelligence.

Perhaps I've over-simplified my idea of planning—what I have just said sounds as though the “planners” were a “brain trust.” Far from it! There is no “combination in restraint of trade” possible in planning. You may remember what President Roosevelt is said to have remarked about there being no such thing as a brain trust but that he trusted brains. I'm not so sure that there is any group that could properly be called “planners,” but I do believe in “planning,” if we will *all* apply our brains to the job.

I believe in *advisory* planning—pre-planning, if you like—getting ready for the next job. We can distinguish in big enterprises of business or of government between planning and execution, and between planning and decision. We can plan or suggest what we think the situation requires and leave it to higher authority to decide what shall be done. Like an architect bringing to his client plans for a house, we can lay our plans before our elected representatives in city, state or Federal Government for decision and for execution if our proposals can win the needed public support.

But, and here is the hard part about planning, the job is never done! We can't depend on a “blueprint,” however useful it may be as a record of what we once thought. Happily, in this world there is nothing certain—except change. Plans that are well suited to conditions now, may be ill-suited in a short time, for new inventions, new standards of living, new customs, new concepts of the “abundant life” will force changes in the “best laid plans of mice and men.” We must have continuous planning.

Perhaps this all seems obvious to you. You are saying to yourselves: “Sure, that's all right, I'll agree that I do that kind of planning in my business and I s'pose my wife does the same in planning the meals or planning the table decorations—so what? What is there in that to have a conference about? What are these Planning guys so excited over anyway?”

*Adapted from a talk prepared for delivery before the service clubs of Detroit, at the National Planning Conference, June 1, 2, 3, 1937. The argument is in effect a sales talk for planning.

It may seem strange—but they *are* excited about planning. Some of these people at this Conference have almost a religious fervor in their belief and faith in planning. Some of us even go so far as to quote Scripture—"Without vision, the people perish," you remember. I would apply that statement to our own situation by saying, "Without planning, democratic government cannot survive."

We face serious issues in this country—peace-time issues as serious as war emergencies. Nowadays, we take it for granted that we should make plans for war situations. We have a General Staff on the job continuously revising plans for defense. It is hard to realize that 35 years ago the late Elihu Root was finding it difficult to get a General Staff established. He had to marshal his arguments in his reports as Secretary of War to get the war planning board set up. He succeeded. His arguments are applicable today to the need for a peace planning board which can suggest alternative lines of attack on the peace-time issues that confront us. The President's Committee on Administrative Management has recommended a permanent national planning agency.

The kind of problem such a national planning agency must tackle and a variety of methods of planning have been shown in the work of the National Resources Committee and in the work of its many predecessors running back through American history. Of course, there is nothing particularly new in all this. We've had Homestead Plans, Trust Busting Policies, Conservation Plans, Studies of Economic Changes, and Recent Social Trends. What is new, is the public realization and recognition of *planning* in these policies.

The National Resources Committee is concerned with national plans for conservation of our natural resources,—for wise use of our farms, forests, pastures and countryside, to control soil erosion and leaching; to secure multiple use of our water resources, to mine our rich ore deposits with avoidance of waste and with due regard to the rights of future generations in our exhaustible resources. The Committee is concerned with our human resources and has been working on "Problems of a Changing Population." We have not forgotten the new inventions which have such a great influence on the way we live and which cause so much change in our social organization. There is a staff in Washington analyzing the consumption budgets of some 350,000 American families to find out what production is needed to attain the much-vaunted American Standard of Living. These are sample activities.

Much of the work of the National Resources Committee is pre-planning, preparatory, finding the facts—attempts to "estimate the situation" rather than to prescribe the remedies. All of the work is strictly advisory—with recommendations for public works, land use, drainage basin programs, conservation of minerals or for economic or social policy submitted to the President and Congress for their use as the American people may desire.

The National Resources Committee has always believed that the very nature of planning makes decentralization essential. We must have the participation and understanding of the people back home in planning to meet the problems of a democracy. Through its District Chairmen, through Regional Planning Commissions, and with the coöperation of such agencies as the Council of State Governments, the Committee has aided interstate planning efforts in the Pacific Northwest, New England, the Ohio Valley, the Delaware Valley, the upper Rio Grande Valley, the Red River of the North, the Central Northwest, and other areas.

Perhaps the most surprising growth of the planning idea has been in the field of State Planning. In the autumn of 1933, when Chairman Harold L. Ickes suggested to the Governors of the several States the desirability of following the example of New York, Wisconsin, and a few other commonwealths in the establishment of state planning agencies, we had few examples to point to. There was some activity in land-use planning here in Michigan, and in New York, Wisconsin, Illinois, and Iowa a beginning had been made.

Chairman Ickes's suggestion was received with enthusiasm—much greater enthusiasm than we had expected. Within a year and a half, 32 state legislatures passed acts establishing planning agencies on a continuing basis, and during the last two or three months, Louisiana, Georgia, Iowa, Nevada, Nebraska, and Alaska and Hawaii have joined the procession. Today, there are 46 state planning boards with whom the National Resources Committee keeps in touch through Consultants and District Chairmen who are available for advice and assistance, to help the state agencies carry out *their* plans. Through the liberal and hearty support of Mr. Harry Hopkins, Work Relief help has been available to state planning agencies, and this year some million and three-quarters dollars will be expended on planning staff projects employing relief workers in various state capitals.

An especially significant aspect of this rural planning movement is the effort in a few States to group together county planning boards into what we have called "district" planning agencies. In eastern Georgia, in eastern Tennessee, in Idaho, Montana, even New Hampshire, movements of this sort are under way. These 27 District organizations have great possibilities, not only for planning the better use of the physical resources of the areas in which they are working, but also for the reorganization or consolidation of our county governments. They recognize that with the automobile, the limitation on the size of a county to one day's driving with a horse and buggy is no longer a valid excuse for the duplication of governmental costs. We have come to a period of consolidation of school districts with the use of automobile buses. I need carry the analogy no farther. Suffice to say, that by far the biggest element in the much-criticized cost of government in this country is due to the fact that we have some 175,000 separate governments in these

United States, and any efforts to consolidate them into a fewer number would seem to be worthy of support.

All this new and revived activity in national, regional, state and district planning has come out of the City Planning movement. These Planning Conferences have been held every year for thirty years, and through these annual discussions the idea of planning has spread from coast to coast. From small beginnings—from experience in our own backyards—people have grown accustomed to the idea of arranging what we have for better use and more pleasure. We have found that our best use of our own “backyard” depended on what our neighbors did with theirs, and so we got into planning groups of houses, subdivisions or neighborhoods. We found our neighborhoods were not the only ones in the city—we must have city planning. We found that the developments in one city affected its neighbor, and so, we have gone from linking the relationship between city and city, to county and county, from State to State, region to region, and so to National Planning. There is nothing very startling or fearsome in that development. It has been a natural process with constantly larger groups of people seeing the relationship of one problem to the next.

A recent check by the National Resources Committee shows that over 1,700 towns and cities have developed some form of planning or zoning to promote the “good neighbor” policy within our cities and to protect investments in homes and business. Some 1,200 cities and towns have continuing planning boards for necessary adjustments in their zoning ordinances and to develop major thoroughfare plans, proposals for playgrounds and parks, to keep pushing for decent housing conditions, and to develop civic consciousness concerning all the problems of our physical environment. The growth of these local planning agencies has practically all come in the last twenty-five or thirty years; but city planning is not new—it is just a renewed consciousness of the problems which we must solve if life in our cities is to be a true expression of our ideals for American civilization.

Some years ago, the city planning movement spread beyond the political boundaries of the city into the metropolitan area. Metropolitan, or, as it was then called, regional planning, supplemented the efforts of individual cities, counties and towns around Detroit, Buffalo, Boston, New York, Philadelphia, Cleveland, Cincinnati, Chicago, San Francisco, Denver, and many other urban centers. The idea of metropolitan planning recognized the unity of the urban community with its market area. The work in this wider field had an economic and social significance as well as physical.

PLANNING AND CIVIC EDUCATION*

EDWARD McKERNON, Publicity Adviser to the New York Regional Plan Association; and to the State Planning Boards of New York, New Jersey and Pennsylvania by arrangement of the National Resources Committee

AFTER many years as an editor, publisher and press association executive, it is my conclusion that nothing else is so poorly publicized as good works while the selfish exploiter of the public gets away with murder. This is due I think, primarily, to the fact that often the well-meaning become so absorbed in their cause, its ramifications and technicalities, that they lose the common touch and fail to recognize the practical considerations that must be taken into account if the public is to be reached and influenced. Sometimes, the beneficent has seemed to me as one floating in the clouds shooting golden arrows earthward in the hope that somewhere, somebody will be hit. The exploiter gets right down on earth and mingling with the masses, talks to them in a language that they understand.

Now of all persons, planners ought to be practical and while I do not recommend the methods of the exploiter, we do need a little of the wisdom of the serpent along with the harmlessness of the dove. We should understand that our first, big job in the planning movement, and that upon which all else depends, is to sell the idea of planning to the public.

Now the only way to sell the planning idea is to present it as a strictly business proposition making your appeal to the selfish interest of the individual. Planning is essentially a great humanitarian effort but it could never be put across as such for the reason that society as a whole is not interested in society as a whole. Group interest and individual interest born of group and individual advantage there is, but there is no such thing as a continuing, popular interest in anything so impersonal and idealistic as the general improvement of the community.

This is not an altogether pleasant thought but it ought to be fixed in the back of the head of every public-spirited citizen who is not satisfied with membership in a mutual admiration society that adopts pious resolutions which the newspapers won't print and which if they did, no one but the resoluters would read; but who is anxious to have those things done that he knows ought to be done for the common good.

There will be found in every city and hamlet a little company of patriotic, social-minded, and unselfish men and women who have caught the vision of a more orderly and happier existence; but when you go out into the highways and byways to compel Mr. John Doe to come in to the planning feast, I beg of you do not waste any time describing to him the satisfaction to be had in serving one's community. Rather tell him that proper zoning may enhance the value of his real estate while at the same

*A talk given before the American Planning and Civic Association, at the National Planning Conference, Detroit, June 1, 2, 3, 1937.

time a wisely conceived long-term program for the construction of public works may eventually lower his taxes; and you will be surprised to see how quickly the face of Mr. Doe is illuminated with a zeal for public service. That is the appeal and the first practical consideration that we must recognize.

Next in importance is the dominating medium through which the public may be reached, the press. Consider the modern newspaper. Does it preach on its first page? No. Editors know that the average citizen gets all the preaching he wants on Sunday. Is it filled with propaganda for the good of the dear public? Not if we can believe the conclusions of a survey of the daily newspapers of the country. According to this there comes by mail into these offices annually, 310 tons of propaganda with a postage bill totaling \$477,660 and of this 310 tons, it is estimated, 95 per cent makes a quick exit by the short cut of the editor's waste-basket. This helps to explain why so many worthy social movements in which much time, energy and money are spent, really get nowhere.

The newspaper owes its continued existence to its ability continually to interest the public. The daily task of the news editor is to select from the wealth of news matter available that which in his opinion will be most likely to attract and hold the attention and serve the interests of the maximum number of newspaper readers. And long ago, editors discovered that pure propaganda on behalf of the public does not interest the great body of newspaper readers.

There is your press and your public. What are we going to do about them? Educate them to print and read what we would like to have them print and read? No, move the Rocky Mountains if you will and change the course of the Gulf Stream but don't undertake to make over the press and the public. Accept them as they are and conform to their practices and cater to their demands.

Break into the news columns by doing things that make news. In any movement in which many persons are engaged there is news and if we don't find it, it is our own fault. I will give you the whole secret of successful publicity in a single sentence. Seek diligently for the news of public interest in your activities and facilitate the handling of it by newspaper editors. Play the editor's own game and he will meet you halfway.

Remember your audience is the multitude. Don't specialize on supposedly influential groups. Confronted once with the argument that first we should try to make men better and then material things would be made better as a matter of course, I countered with the suggestion that we experiment in a reversal of the rule. That if life was made for many, a little less of a depressing grind, perhaps men would be better.

So I made a personal appeal to 50 Protestant clergymen and Jewish rabbis in the Metropolitan area, to study the place of the church in the

growing city and see if they could not find justification for a sermon or a less formal address on the relation of city planning to the development of man's spiritual nature. To rid the city of its degrading slums; to take the children from crime-breeding streets and permit them to play amid wholesome surroundings; to lighten those burdens that crush the spirit of men and make a mockery of ideals, appeared to me to have something of the character of a religious crusade. But I couldn't put it over. My campaign was 98 per cent a flop. So far as I could learn, the only one of the 50 who entertained my suggestion was the late Dr. S. Parkes Cadman. Do not misunderstand me. I do not say this in criticism of the clergy but to emphasize the futility of trying to figure out in advance from whence your strength shall come.

Don't angle for political influence. This is everybody's party. Stir up your community by doing things. A handful of women wished to see a county planning board set up and sought the blessing of the political leader of the county. He pooh-poohed the idea. But these women were shockingly unorthodox. They held little meetings and they talked right out in meeting. They imported planning speakers and larger and larger crowds came to learn what it was all about. Then the newspaper reporters pricked up their ears and suddenly the movement broke into print. Well, to make a long story short, within a few months after he had done his pooh-poohing, this political leader was bustling around to get himself elected chairman of a county planning board. Sell the public on the planning idea and the politicians will sell themselves.

We are likely to associate public opinion with the often casually expressed attitudes of political and civic societies but the most powerful public opinion is unorganized. The engineers of the Regional Plan Association of New York theoretically reconstructed a few blocks on the lower East Side of Manhattan where people live in crowded and sunless tenements. By closing one or two unneeded streets and running the buildings up a couple of stories, they showed how the same number of families could be housed on the same ground area and have sunlight in their homes and an open space in the center of the group. Comparative pictures of how things are and how they could be, were published.

A few days later an indignant real estate man said to me: "Those city planning crack-pots make me sick. A fellow came to my renting agent yesterday and wanted sunshine in his bathroom. When the agent told him that in New York, at the rent he could pay, those things just ain't, what do you think the wise one said? 'Oh, yeah? Well, I saw an article in the paper that showed how there can be sunshine in every room of a tenement whenever you guys want to build them that way.'"

That's public opinion, uninformed in the science of planning if you please, but public opinion that, working from the bottom up, gathers weight like the proverbial snowball and gets what it demands.

Don't sermonize, don't moralize and before all, don't patronize.

Talk to your fellow townsmen as one selfish citizen to another selfish citizen. Hand it to them straight from the shoulder. Tell them what boobs they are not to help themselves by helping others. Make them impatient of familiar evils that need not be and always dangle before their eyes the promise of something to be done for them with their support. Don't fish for individuals or groups. Cast your line into the middle of the great human stream and you will land support that you never expected.

And when you approach the press, don't sneak up the fire escape and ask the editor to please be a good fellow and put a piece in the paper saying that "Mrs. Uplifter gave a planning tea at which Mr. Uplifter A.M., P.M., and M.M., clarified local planning problems and much interest was expressed." Crash the front door of the newspaper shop and throw into the editor's lap the stuff that he has to print because it is of interest to the public—news, of something important revealed or that is being done, or going to be done and so fits his formula for that which will attract the attention and hold the interest of the reading public. Play for the selfish interest of the crowd and the selfish interest of every medium through which it may be reached.

All this presupposes a knowledge of and faith in, your stock in trade. I believe we have the finest line of merchandise and the greatest bargain ever offered the American people. Ten years ago I said, I think it was at Rutgers University, and I say it again. We have been living in a fool's paradise. Ours is a form of government for the survival of which there is no precedent. I believe it will endure just so long as the masses are reasonably comfortable and that if they are ever persistently uncomfortable, our whole governmental system will blow up and as to what will replace it, one guess is as good as another. I believed that then; I believe it now.

The masses must and should be made comfortable and who shall make them so? Who indeed, but the planners. Why, that's your particular job. You haven't begun to realize the momentous significance of this thing that you have undertaken. Just now you are preoccupied with its physical, social and economic aspects but with these, the political is inseparably linked. I solemnly believe that the future of our democracy may depend upon the success of this planning movement.

And I may add that I don't feel sorry at all for you overworked, often harassed, and sometimes discouraged planners. You have your reward. You are of the only aristocracy that we recognize in this country, the aristocracy of responsibility. You belong to the noblest profession of them all, the profession of doing something worthwhile in your day and generation.

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