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BY THE HOUSE OF DELEGATES

February 20, 1844.

Read and ordered to be printed.

A N S W E R

OF THE

President of the Baltimore and Ohio Rail Road Company,

TO INTERROGATORIES

PROPOUNDED BY THE HOUSE ON THE 20th FEBRUARY,

WITH THE

ACCOMPANYING REPORT

OF

BENJ. H. LATROBE, Esq.

CHIEF ENGINEER.

R E P O R T .

ANNAPOLIS, Feb. 23rd, 1844.

To the *Honorable*

The Speaker of the House of Delegates :

SIR: In compliance with an order of the House of Delegates, of the 20th instant, requiring "the President of the Baltimore and Ohio Rail Road Company, to inform the House at the earliest practicable day, whether, in his opinion, a Lock and Dam navigation of the Potomac, from Dam No. 6, to the mouth of Savage, can be constructed without material injury to the Rail Road, and if injury will be sustained, how, much, what points, and to what extent," I have the honor to submit the accompanying report of the Chief Engineer of the company, made for the purpose of enabling me to reply to the order.

From this report it appears,

1. That from Cumberland to the mouth of Savage, a Lock and Dam navigation of the river Potomac, can be constructed without material injury to the Rail Road, and for the reasons stated in the report.

2. That such Lock and Dam navigation of the river from Dam No. 6, to Cumberland, would materially injure the Rail Road, at a number of points embracing a distance of not less than 23 miles of the road; and the points at which such injury would be done, and the conjectural (in amount) but certain damage which would thence ensue are also stated in detail in the report.

In the opinions and results presented in this report of the Chief Engineer, I beg leave, in further compliance with the order of the House of Delegates to express my concurrence.

Although this report is as comprehensive as the nature of the case will admit of, it presents the impossibility at this time of correctly estimating the "extent" of the injury which the Rail Road company would sustain; because, so far as it relates to the loss

consequent upon stopping the business of the road, it is hardly possible to state it, and because it would in some degree depend upon the measures which it might become the duty of the Rail Road company to take for its protection, should such a work be seriously contemplated.

Such of these as obviously suggest themselves, are,

1. That of looking to the company constructing the slack water improvement, upon the occurrence of actual injury, for the cost of repairing damages done to the road and for those sustained in the consequent interruption in the trade and travel upon it.

2. That of reconstructing 23 miles of the road, so as to raise the levels above the reach of the increased high water occasioned by the dams.

3. That of seeking the interposition of the tribunals of the State of Virginia, to prevent the construction of works which would so certainly occasion injury to those parts of the Rail Road the levels of which had been adjusted with the knowledge and permission of the canal company by its Chief Engineer.

The proceeding under the 1st and 2nd heads pre-supposes the the actual infliction of all the injury arising from a suspension of the trade and travel upon the Rail Road; the extent of which, however, both in its positive and consequential loss, it is now impossible and would at any time, even after the occurrence of the disaster, be extremely difficult to ascertain or estimate.

Without both the disposition and ability of the company from whose acts the damage may have been sustained, promptly to afford the requisite indemnity in either of the cases supposed, the injury would only be aggravated by either proceeding; and the State being a large partner in both works, the positive loss to her could in either case, by any possibility, be avoided.

It might become unavoidable therefore, as the alternative of effectually escaping the mischief here supposed to the State and to the Rail Road company, to seek the interposition of the Virginia courts, to prevent the infliction of the injury.

Though this should prove effectual for the purpose, it might nevertheless lead to expensive litigation, in which the State would necessarily be a party and involved in the loss and expense on both sides; and it would certainly prove destructive of the great object (presuming that to be despatch) of the improvement referred to in the order to which this letter is in reply.

I have the honor to be Sir,

Very respectfully,

Your ob^t servant,

LOUIS MLANE,
President.

COMMUNICATION.

ANNAPOLIS, February 22d, 1844.

TO LOUIS MCLANE, ESQ.

President Baltimore and Ohio Rail Road Co.

SIR: I respectfully submit the following report, to enable you satisfactorily to reply to an order addressed to you by the House of Delegates of Maryland, of February 20th, 1844, and by you referred to me, asking "whether in your opinion a lock and dam navigation of the river Potomac, from Dam No. 6 to the mouth of Savage, can be constructed without material injury to the Rail Road; and, if injury will be sustained—how much—what points, and to what extent."

Inasmuch as an order from the House of the same date has been addressed to myself, embracing several of the enquiries proposed by the order just repeated, I beg leave, with a view to abreviate this communication, to refer to my reply to the order directed to myself, which has been this day submitted to the House, and which contains most of the facts and opinions which I have to offer relative to the subject in hand. In addition to what will be found in that reply, I proceed to submit the following statements upon the specific enquiries which have been addressed to you and not to myself. The enquiry of the House made of me, referred only to a lock and dam navigation from dam No. 6 as high as Cumberland—while the interrogatory put to you, speaks of an extension of that navigation from Cumberland to the mouth of Savage river. In my reply adverted to, the opinion is very fully expressed to the effect that such an improvement *would* "materially injure" the Rail Road between Dam No. 6 and Cumberland; because, the road being already constructed between those points, and its levels for half the distance being established at the plane of high water in the present state of the river, no elevation of low water surface such as locks and dams would occasion, could take place without flooding the road in high freshets on the part of its line just referred to.

Above Cumberland, however, upon the Potomac, the road does not at present extend, nor is it certain that when carried beyond that point it will be by that route; but if it should be, and the improvement of the river to the mouth of Savage should take place before the location of the Rail Road, the levels of the latter work could be adjusted with reference to those previously established for the river navigation, and injury from flooding by the dams could be guarded against by assuming proper elevations for the road, which could be done under those circumstances without a material increase of expense in its construction. So that the Slackwater which would be inadmissible below Cumberland would be unobjectionable above it, with reference to the safety of the Rail Road.

2nd. The next enquiry relates to the *points* at which injury would be sustained by the Rail Road. Those points would, as just stated, be confined to the distance between Dam No. 6 and Cumberland—and on that part of the river they would occur at the localities specified as follows:—1st. From a point twelve miles above Dam No. 6 to a point nineteen miles above the same, making a space of seven miles, opposite a series of flats on the Maryland shore called the “seven mile bottom.” 2nd. From a point twenty-two miles above Dam No. 6 to a point thirty miles above the same, making a space of eight miles, which embraces the flats above and below the Little Cacapon to within a mile of the South Branch. 3rd. From a point thirty-two miles from Dam No. 6 to a point forty miles above the same, and embracing the flats (with some intervening narrows,) between the South Branch mountain and Patterson’s creek.

Upon the three sections of the road just described the levels are at or near the high water mark, being sometimes a little above and at others very slightly below it. The aggregate length of these sections, makes twenty-three miles of low levels, on which slight and not injurious overflow in extreme freshets may take place, in the present condition of the river; and whereon great damage would be done if that condition were altered by such elevation of the water as would attend a lock and dam construction in the bed of the stream. It will be noted that of the twenty-three miles of low levels, fifteen occur below the South Branch and eight above it. For a space of a mile above and a mile below the South Branch the levels were elevated to permit a navigable feeder for the canal to pass under; which will account for that space of two miles not being included in the low levels, which it would otherwise have been.

The four sections of the line between Dam No. 6 and Cumberland, upon which the levels are so far out of the reach of high water as not to be endangered by a lock and dam improvement, are 1st. the twelve miles of hill side location connected with the cut off at the Doe Gulley tunnel. 2nd. The three miles of similar location at the Paw Paw tunnel. 3rd. The two miles of the South Branch crossing elevated above high water for the reason just

given. 4th. The six miles of line in Maryland next to Cumberland, in which two bends of the river are cut off and the levels are consequently high. The total length of these four sections is twenty-three miles, and with the twenty-three miles of low levels makes up the entire distance of forty-six miles between Dam No. 6 and Cumberland. The *points* at which the injury to the Rail Road would be sustained are thus indicated according to the enquiry of the order of the House.

3rd. The *extent* of the injury forms the remaining point of that enquiry.

In considering this part of the subject it is first to be observed, that the expense in which the Rail Road would be involved by the lock and dam improvement, may present itself in one of two different shapes—viz.

1st. The cost of raising the levels of the road, so as to be out of the reach of the increased high water due to the dams.

2nd. The cost of repairing damages done to the bed of the road and to its business, by freshets which would tear up the former and interrupt the latter. It is obvious that no estimates can at this time be offered under either branch of the alternative, (especially the latter) which would be more than very conjectural approximations to the extent of the expenditures and loss which they would involve. Were sufficient time allowed (and several weeks would be required,) a satisfactory estimate might be prepared of the cost of raising the road upon the twenty-three miles of low levels, so far as the mere expense of construction was concerned. If I were compelled at this moment to hazard an opinion of the expense of that operation, it would be that it could not be safely assumed at less than \$300,000—for the outlay in graduation, masonry and raising the wooden bridges, the level of the road to be elevated an average of six feet. If to this be added a fair allowance, and to that end it should be a very liberal one, for land damages, raising and adjusting the tracks, inconvenience, delays and accidents in conducting the business of the road while this re-construction was in progress, it is believed that the total actual and virtual expenditure would not fall short of \$500,000 for the whole twenty-three miles, and a less proportional amount for a less distance.

I cannot attempt an estimate of the aggregate pecuniary injury which, in the course of time, would be sustained by the road under a subjection to overflow by every high freshet, of which one might be expected to occur in the future as in the past every eight or ten years. The damage which would be sustained by the work thus periodically ravaged by the floods of a great river, would undoubtedly be very considerable at each visitation of the waters, and the sum of these injuries could not fail eventually to amount to more than the preceding estimate of the cost of protecting the road against these inundations by raising its level at the places exposed to them.

In either of the foregoing alternatives then, the expense which the proposed Slackwater improvement would occasion to the Rail Road, could not be safely set down at less than half a million of dollars.

Leaving now the subject to your consideration, I remain with great respect,

Your obedient servant,

BENJ. H. LATROBE,

Chief Engineer Baltimore and Ohio Rail Road.

