

which there is reason to believe is quite competent of itself to feed the canal for $30\frac{1}{2}$ miles;

4.—Revenue would be lost by the South Branch trade being driven off from $10\frac{1}{2}$ miles of the canal, unless outlet locks were built opposite to that stream, which the supply of water there would scarcely allow.

The high dam required upon the 5th plan would be objectionable for obvious reasons.

The idea of forming a double navigation at the Pawpaw Bend by one line of boats passing through the tunnel and the other around the bend, is plausible but delusive; it appears as if time would be saved by it, but such is not the fact, for in a previous part of this report it has been shown that at the average rate of detention of boats, the tunnel route virtually saves near $3\frac{3}{4}$ miles of distance, and at the maximum rate of detention (60 minutes) about $2\frac{1}{2}$ miles of distance or *one hour in time* would be saved; is it not therefore manifest that, *unless forced*, no boatman would commit the folly of going around the bend, when by waiting his turn in the tunnel convey, he would virtually save from $2\frac{1}{4}$ to 5 miles in distance, or actually from one to two hours in time, according to the period of his arrival at the entrance of the tunnel route.

Finally, then, upon the subject of an “*intermediate feeder*,” the information I now possess, defective as it is in some points, enables me to declare without hesitation, that any plan of feeding from the main Potomac at the Pawpaw Bend is *inadmissible*, and that the choice must lie between a navigable feeder from the South Branch and a reservoir upon Town Creek; the original cost of which last, would probably be the least amongst all the plans.

To the reservoir plan one objection arises, viz; that without outlet locks at the mouth of the South Branch which our supply of water will not permit, the entire traffic of the valley of that noble stream would be compelled to pursue the river to Dam No. 6, by which the company would lose the tolls of this trade upon $30\frac{1}{2}$ miles of canal. A feeder from the South Branch would therefore in this aspect, possess a decided advantage over any of the others, as follows :

Over the plan of feeding from the Town Falls, (No. 2)	{ In receiving the revenue from the South Branch trade upon an additional distance of,	Miles. 6 $\frac{1}{2}$
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