

Benefits of new Canal Sp St 13/2/3

The opening of this short expeditious and safe communication between the East and West seas by this canal, the whole intermediate country between Leeds and Liverpool and for considerable extent on each side of the canal will be supplied with wool, woollen yarn, corn and provisions from Ireland which with the produce of America and whatever else is imported at Liverpool, and the same country will also be supplied with linen, linen yarn, tin plates, deal timber boards, planks, iron, hemp, flax, linen, tallow, iron potash, etc and whatever else is imported from the east countries at the Port of Hull. And though this may seem to affect the intermediate country in particular by advancing their manufactures and improving their lands, yet the whole kingdom shares in the improvement and the advantages of these manufacturers, which annually bring into it not is less than 2 millions sterling. Besides the advantage of this internal navigation from east to west, without being obliged to go round the island will in time of war be a prodigious advantage to the whole trading interest upon the whole. The many advantages arising from this internal navigation from sea to sea are so many and so various and of such prodigious value to the kingdom in general as well as these counties in particular, that it is difficult if possible to form any adequate idea of them and the most able calculator would be hard to set to make a tolerable guess at them.

[Figures re possible traffic]

Length 90 miles: Breadth 10 miles = 900 Sq Miles

1 Sq mile is 640 acres = In all 576,000 acres

Out of these acres, suppose 57.600, or one in ten to be each year with 3 tons lime = 172,800 tons of lime annually spent.

The tonnage of 172800 tons of lime carried at a medium 24 miles at 1s per ton = £8640.

Suppose 1 Load Ton of Coals to burn 5 Ton of Lime.

34560 Tons of Coals will be required, which at 2s per mile for 24 miles at a Medium produces £3456 per annum.

(But probably one half of ye Lime will be carried in Limestone, & then ½ of Tonnage upon Lime & Coal must be deducted)

Suppose ye consumption of Lime for building etc be one tenth of that is used for Land, it will produce £864.

Suppose ye Coals for House firing and burning Bricks be 1/3 of what is used for Lime, £1152 will be produced by it.

Lime for Land	8640		
Do for Building	864	9504	
Coals for Lime	3456		
Do for House use etc	1152	4608	14112
Merchandise			<u>8100</u>
Total			22212

2ndly. It will contribute very much to the advancement of trade and manufactures.

All experience tells us that nothing contributes more to the encouragement of trade and manufactures than ease in the conducting them. Facility in procuring the proper materials for them and in conveying the manufactures when made to a proper market, and a certain and uniform subsistence for the manufacturers.

Now all these can encouragement is this canal will give. A ready constant cheap and certain conveyance of every specie of goods from one place to another will render the management of trade and will also supply the manufacturers with great variety of materials, as Irish wool, woollen yarn, cotton, indigo, dying woods and other materials, and at the same time will provide a constant and uniform plenty of subsistence, as the market will be, as it were, brought to their own door, and coals, corn, potatoes and other sorts of provisions will be continually passing and re-passing along

the canal as markets fluctuate, and the scarcity of one place will be supplied by the superfluity of another.

3rdly. It will greatly improve the lands, and ensure the population of the country.

Lime, where used with judgement, is beyond doubt one of the best manures for land, and by the help of this canal may be had in great plenty and cheap from one end of the canal to the other and for 6 miles or more on each side of it to the great improvement of this large and extensive tract of the ground; in several parts whereof at present no lime can be had at all, and in many other parts it is too expensive dear by the land carriage that it is but rarely and sparingly used. Besides this, marl and other manures, particularly salt might also be had by means of this canal in many considerable parts of this intermediate country which now can get no such thing.

And that the population will be encouraged is evident from what is said before, for where manufacturers are encouraged, where there is plenty of work and plenty of wholesome provisions, population never fails.

4thly. It will save an immense expense of land carriage. This will appear evident if the present price of land carriage be compared with the price propose to be taken for the water carriage. The price of land carriage at present is at an average one shilling per mile per ton, the price propose to be taken by water for tonnage freight and all, is, for merchandise 2d per ton per mile, or 1/6 part of the land carriage. For coals at 1½ d per ton per mile or 1/8 eighth part of the land carriage, and for limestone, lime, slate etc 1d per ton per mile, or 1/12 part of the land carriage. Thus upon a medium at least seven parts in eight of the expense of land carriage will be saved to the public.

Disadvantages of A&CN Sp St/13/2/3

Reasons against locking into the River Aire

That by so doing the Canal will become liable to all the inconveniences of a River Navigation in a Part on which a very principal strand of Business will be transacted, & consequently the Advantage of navigating on a Canal & the Disadvantages of navigating upon a River will be felt in their full Extent.

Now ye Disadvantages of a River Navigation I take to be these, particularly of the River Aire, both above & below Leeds.

That it lacks that most useful of all Requisites in Trade, Certainty, that it would be liable to be interrupted at all Seasons of the year from a Scarcity or a Superfluity of Water, that it may be so totally suspended by a great Flood or a great Drought that a whole Fleet of Vessels may be obliged to perform ?Tunnage? at Armley. Nay, I am told, that a Canal is less liable to be stopped by Ice than a River – for these Reasons – that the constant Variation of its Surface from the emptying and filling of the Locks must render it difficult to be frozen over and that when it is frozen over an Ice Boat may succeed in attempting to break the Ice for several Days afterwards. And of this I am sure that a long Frost is Generally followed by a Flood which in a River would continue the Impeding still longer.

Expected traffic, L&LC. SpSt 13/2/3

Length of ye Canal destitute of Lime: 90 miles, 10 miles in breadth or 5 miles either side

900 square miles

640 square acres in each mile

576,000 square acres in ye whole, of which 57,600 acres to be limed every year with 3 tons each:

172,800 Tons of Lime will be consumed

Of this, suppose 129,600 tons, or ¾ of ye whole to be carried at a Medium 24 miles at 10s per ton, it will produce

£6480.0.0

Suppose ye remaining 43,200 tons to be carried as Limestone, & ye 2 ton of stone will produce one ton of Lime, 86,400 ton of Limestone will be carried at a Medium 24 miles at 1d per ton, it will produce

£4320.0.0

Suppose ye Quantity to be used for Building be 1/20 of what is used for Land, it produces £540.00

To burn 129,600 tons of Limestone, at one ton of coals to 5 ton of stone, will require 25,920 tons of coal, which carried at a medium 12 miles at 1s per ton will produce

£1296.0.0

Suppose an equal Quantity of Coals be used for House-use, burning Brick, etc, £1290.0.0 will arise from it.

From Leeds alone 60 tons of Merchandise is carried westward, and 1/3 or 20 tons is every day brought to Leeds from ye west in ye line of Canal, making 80 tons, every day except Sundays, about 24,000 tons in a year, which being carried 12 miles at a medium at 1s 6d per mile will produce about £1800 per annum.

Suppose the remaining 84 miles in length of ye Canal doubles these quantities, it will amount to

£3600.0.0

If these Calculations are near ye Truth & there is ye strongest reason to believe them below rather than above it, then ye yearly Profits of ye Canal will amount to about £21,132, viz

From Lime & Limestone used for Manure	£10,800
From Coals used for burning Lime	£1,296
From Lime used in Building	£540
From Coals for House use, burning Bricks, etc	£1,296
From carriage of Merchandise	<u>£7,200</u>
	£21,132

Sp St 13/2/3 For and against the navigation (L&LC)

Having taken a short view of some of ye advantages which are likely to arise from this undertaking, it seems necessary to consider two Objections that are made to it.

1st: That will injure if not take away ye properties of those persons through whose Lands it is to be cut.

2nd; That ye profits which this Navigation will produce will not equal ye Interest of ye Money that must be expended in making it.

As to the 1st of these Objections, it is intended that ye proprietors shall be by ye Act of Parliament particularly restrained as to Houses, Gardens, Yards, Parks, Paddocks, Planted Walks or Avenues or Lawns inclosed & adjoining to any House; & as to all other Lands a full & ample Consideration must be paid for them before ye proprietors can enter or cut in to them, which Consideration, if ye Landowners & proprietors cannot agree upon it, must be settled & determined by a Jury of ye Neighbours assisted & directed by a number of Commissioners appointed out of ye best Gentlemen in ye Country not being proprietors of an interest in ye Navigation.

As to the 2nd Objection, the above written Calculations made by ye most skilful & experienced men that could be had, will sufficiently answer it.

Lime for Manure	10800.0.0
Do for Building	540.0.0
Coal for burning Lime	1296.0.0
Do for all other ?	1296.0.0
Merchandise	7260.0.0
	21132.0.0

To how much this Saving may amount, it is not easy to say with certainty. But if the profits to arise from ye Navigation, as mentioned above, be ruly calculated, & by those who know ye Country best,

it is deemed to be rather below than above ye Truth, this saving will amount to about 200,000£ a year.

Besides these advantages, there is still another arising from time, of from ye certainty & Expedition of this Mode of Conveying goods & merchandise from one place to another. An Advantage well understood by all Traders & Manufacturers. Now a certain & proper number of covered or decked Boats (suppose six) built after the manner of those now made use of by ye Duke of Bridgewater, divided into 3 or 4 convenient rooms for passengers & merchandise, of which one should set out from Leeds & another from Liverpool every morning at a certain stated hour, & making a certain short stay in its passage at certain stated times & places to take in & discharge goods & passengers, would furnish to ye whole intermediate Country a certain, safe, cheap & commodious Conveyance of Goods & passengers from place to place, & compleat ye whole passage from Leeds to Liverpool, & in like manner from Liverpool to Leeds, in three days.

From Leeds only 60 ton of merchandise is carried every day, except Sundays, Westward in ye Line of Canal, or about 18,000 Ton.

12 Miles at a Medium which will produce at 1½ per mile	1350
Suppose if some, & probably a greater Quantity, goes from Liverpool	1350
And supposing if Carr(iage) of ye remaining 84 miles doubles these Quantities	5400
	8100