

The request was not successful and as Bude was registered with the Port of Padstow, ships Masters had to go to Padstow to clear their vessels through customs, before docking at Bude.

In a letter dated 13th August 1798 it is now clear that the wharf (Grenville’s Wharf) is no longer accessible and that ships unloaded onto the beach at low water. The silting-up of the River Neet had continued to make the passage of ships impossible.

During the mid-1770s there were appeals from Masters and Captains of local vessels not only for a safe haven at Bude but also the possibility of a canal from Bude, on the north Cornish coast to the River Tamar, creating a safe trading route using barges and small boats to tranship goods across the peninsula in either direction thus avoiding the hazardous voyage around the south coast and up the north coast via Lands End with its prevailing on coast winds. Loss of ‘sail power’ and on shore winds meant nowhere to go or manoeuvre except the waiting reefs of rocks.

The pleas for a safe haven went unanswered but in 1774 John Edyvean proposed a canal from Bude to Calstock on the River Tamar. In a straight line it was about 30 miles but by his proposed canal route it was around 90 miles. This was due to having to follow contour lines with incline planes with rails for trucks, so a mixture of canal and rail road.

There was support for this venture and it achieved an Act of Parliament on 24th May 1774 ‘...for making a navigable cut or canal from the Port or Harbour of Bude in the Hundred of Stratton, in the County of Cornwall, to the River Tamar, in the parish of Calstoke in the said County.’

The purpose of the canal was to not only connect the Bristol and English Channels but to transport sand, Welsh coal, stone, lime, other manures, mining products, timber, agricultural goods and domestic supplies.



Its tortuous route for maximum benefit went through the parishes of Marhamchurch, Poundstock, Whitstone, Bridgerule, North Tamerton, Boyton, Werrington, North Petherwin, Tremaine and Egloskerry to Launceston, continuing on through Laneast, Lewannick, North Hill, Linkinhorne and Stoke Climsland through to Calstock.

This canal was designed to have 5 inclined planes, including a tunnelled section of about 300 feet, with the use of the trucks on the planes for the transfer of goods helping to achieve a summit level of over 240 feet above sea-level.

Despite investment the returns were poor and by the end of the following year, with no start having been made, there was talk of abandoning the project. The Act had a life of 10 years and the project was finally abandoned in 1784.

Engineer John Smeaton, in 1777, considered the 1774 scheme and made suggestions to amend the plan by shortening the route, using dams and locks on the rivers at Bude, Tamar Valley and Calstock and only 2 inclined planes. He stated that the damming of rivers with locks was a much cheaper and efficient scheme although he had not costed the revised scheme. No decision was made and no start of this scheme occurred.



John Smeaton

In 1785 Edward Leach produced some fresh ideas based on Smeaton’s report. The overall length being

40.75 miles with the use of waterways and inclined planes using waterwheels for power with some counter-balance. The boats being conveyed on a vehicle which travelled horizontally up or down the plane. Despite this ingenious plan the canal still remained unbuilt.

During the 1790s an ambitious scheme was being planned for a 30-mile canal from Morwhellam, up the Tamar valley, to Tamerton Bridge. This was partially built as far as Gunnislake and known as the ‘Tamar Manure Navigation’ scheme. The effect was to renew interest in having a Bude Canal. This idea was supported by Holsworthy landowner Lord Stanhope who had visions of modern techniques using scientific and engineering inventions.

Early 1793 saw the possibility of a canal reaching from Bude through to Hatherleigh but a preliminary survey showed that a much larger subscription was needed than raised. Later that year, at The White Hart Inn, Holsworthy, a detailed report by John and George Nuttall was presented to a meeting chaired by Lord Stanhope.



Charles Stanhope, 3rd Earl

The Nuttall’s report suggested that the canal operated at a height of 473½ feet in order to cross the north-eastern ridge at Holsworthy. Raising boats to this level was to be achieved by various methods such as the use of steam engines and perpendicular lifts or chains and ropes powered by horses. Locks were considered but later dismissed due to the severe rise to clear the north-eastern ridge. The hill slopes were unsuitable and the lack of available water with which to operate a lock system, plus the necessary construction costs, meant this option was dismissed. Concern was also expressed that the many water mills in the area would have their water supply affected by a lock system.

However, the Nuttall’s favoured method was the use of ‘iron rail roads’ together with the canal. These would connect four level canal sections, the rail road covering four miles in total, incorporating five tunnels and two inclined planes. The total cost of the 75 mile waterway was £32,404. Some 250,000 acres would benefit from a canal system with an estimate of 10% annual revenue of the capital sum.

This canal penetrated well into Devon and came within 1 mile of Hatherleigh. Lord Stanhope favoured the use of small boats carried between a pair of 6-inch diameter wheels, drawn by horses. There is no clear description as to how the inclined planes would operate at this stage.

The Holsworthy meeting unanimously resolved to apply to Parliament for an Act. The Nuttall’s were appointed to complete the plans for the scheme. Lord Stanhope was thanked for his ‘indefatigable zeal and perseverance’. Despite further subscriptions the meeting was adjourned sine die.

In September 1793 Lord Stanhope became engaged in a three-year correspondence with Robert Fulton, a young American artist. Fulton had an inspired ability to design and engineer inclined planes by introducing the use of water-power to drive the system resulting in moving boats up and the planes.

May 1794 saw Fulton obtain a patent for the use of a double inclined plane incorporating a water cistern (LEACH) or caisson (STANHOPE) arrangement carried on 4 or 8 wheels. Consideration was given to a counter-balance system whereby necessary water would be added or removed to maintain the equilibrium. he also suggested the use of waterwheels to draw the boats up the incline. The wooden boats were to be rectangular of 2-4 feet in width. The wider 4 feet boats would be 20 feet in length with a depth of 2ft 10in enabling a capacity of approximately 4 tons, whilst underneath would be two pairs of 6-10 inch diameter wheels made in one piece with the axle.

In his book ‘A Treatise On The Improvement Of Canal Navigation’, published 1796, Fulton further explained his proposals for narrow canal, inclined

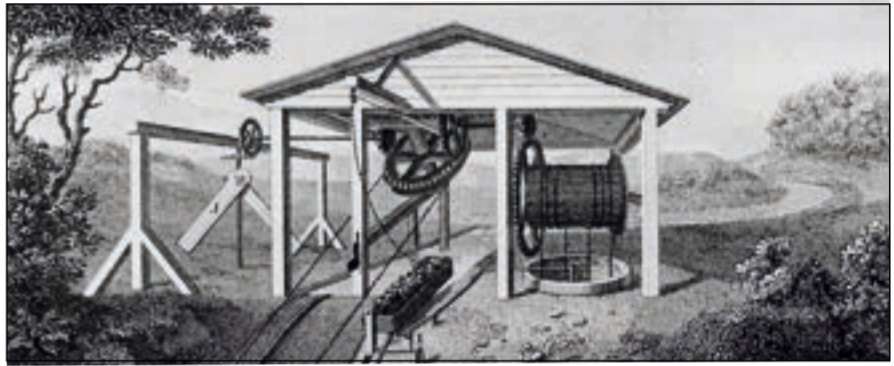
planes and the use of shallow rectangular boats with wheels but advocating alternative methods of lifting them.

In brief these were: (1) A water tub descending in a perpendicular shaft to raise the boats up the incline. Each boat would be attached by chains to an endless chain passing up one track of a double inclined plane and down the other passing around wheels fitted at the top and bottom of the structure. (2) Use of an overshot waterwheel sited at the top of the plane for providing the lifting and braking power.



Robert Fulton

He also gave advice about the location and slope of inclines, the dimensions of the rail system on the plane as well as details of the pit or shaft, dimensions of the tub or bucket and necessary volumes. He recommended the waterwheel system as best for ascents with less than 200 feet of vertical height.



His inspiration, design and conclusions later played a big part in the construction of the Bude Canal of 1819 after they were refined, adapted and used on the 6 inclined planes of that Canal by James Green, Canal Engineer (b:1781, Birmingham). The 1700s had seen the Industrial Revolution, the growth of the British Empire, American War of Independence, the Declaration of Independence, the French Revolution and the rise of Napoleon Bonaparte. All of which had massive effects both social, political and military actions around the world, so it was 1814 before the idea of a canal at Bude came to the forefront as a project which would be a means of employment for the large numbers of men returning from the Napoleonic Wars.

The idea of reviving the Canal scheme came from conversations between Mr Harward of Tackbear, Bridgerule, and Mr Braddon of Newacott who had a copy of Nuttall’s report of 1797. Mr Harward sought support from Lord Stanhope with a view to engaging greater support from other interested people and a meeting was arranged in London during 1815.

Napoleon’s last flourish prevented that meeting and in 1816 Lord Stanhope, the 3rd Earl Stanhope, died and was succeeded by his eldest son Philip Henry, the 4th Earl Stanhope.



Philip Henry Stanhope, 4th Earl

Undeterred Messrs Harward and Braddon continued with their efforts to raise interest and support including that of the new Lord Stanhope. This resulted in James Green (Engineer) and Thomas Shearm (Surveyor) being invited to survey a line for a canal in 1817.

James Green’s instructions were to look at opening a canal into the interior beyond Holsworthy, as far as Thornbury and also to Tamerton Bridge in the Tamar Valley. During his survey he was also asked to inspect a route to Launceston. His report was to be in sections with cost estimates so that the whole plan would not fail should a smaller scheme be decided upon.

James Green presented his report to the subscribers on 14th April 1818 at a meeting in Launceston. His report concluded that there were two alternatives,