

Email to Ms. Jane Strachan, Programme Officer.

Subject Matter: Bridlington Town Centre Area Action Plan  
Additional Statement re the Jacobs Report

Dear Ms. Strachan,

Having regard to your email to the Commissioners' Solicitor, Bruce Raper of Gosshalks Solicitors, dated 18<sup>th</sup> November last, I attach hereto the additional statement relating to the Jacobs Report which has been prepared on behalf of the Commissioners by W. H. Trevitt BSc, C.Eng, M.I.C.E., a principal of Wheeler Trevitt Consultants Limited, the Harbour Surveyors.

I apologise for the late submission of this additional statement but detailed consideration of the Jacobs Report was time consuming but essential. Given the importance of the Harbour development both to the Spa and the Town Centre, failure of the marina would jeopardise the renaissance of both which, I understand, to be the prime purpose of the AAP.

In my view it is pertinent to bring to the Inspector's attention at this stage the fact that the Jacobs' Report comprises three documents, namely:

- a) An Updated Interim Technical Report dated 29<sup>th</sup> September 2011 by Jacobs Engineering;
- b) An Uncontrolled Draft Outline Business Plan dated October 2011 and prepared by Leigh Fisher; and
- c) An Uncontrolled Draft Outline Delivery Plan Report dated September 2011, also prepared by Leigh Fisher

You will note that the Jacobs Report refers to the draft Scott Wilson Report as do the Commissioners in their additional statement attached hereto. The draft Scott Wilson Report is not included in the list of Core Documents nor are the Wheeler Trevitt Reports 2010/11 which surprises me. The Inspector should in my opinion be made fully aware of the contents of these reports and I should be obliged if you would immediately arrange for these Reports to be added to the list of Core Documents.

Yours sincerely,

G. H. Traves. MBE  
Chairman.

## **The Bridlington Harbour Commissioners**

### **Representation on the JACOBS' REPORT by W H Trevitt, B.Sc., C.Eng., MICE.**

- 1 This representation was foreshadowed at the pre hearing meeting as recorded in the notes of the pre-hearing meeting, ED18 Para 12.8-12.10, the subsequent letter dated 4 November 2011 from Gosschalks to the Programme Officer and the Programme Officer's reply of 18 November 2011.
- 2 This statement comments on the Jacobs' Report, as received by the Commissioners for discussion at the meeting with the Council and Jacobs held on 10<sup>th</sup> November 2011. At that meeting the Commissioners said they would reply in writing because of the detailed nature of the report. We are now able to give informed comment.
- 3 The Jacobs report was made up of three documents, namely an Updated Interim Technical Report, dated 29/9/11, by Jacobs Engineering, an Uncontrolled Draft Outline Business Plan Report, dated October 2011, prepared by Leigh Fisher, and an Uncontrolled Draft Outline Delivery Plan Report, dated September 2011, also by Leigh Fisher. The Updated Interim Technical Report was received at the harbour offices by e-mail on 30<sup>th</sup> September 2011. The Uncontrolled Draft Outline Delivery Plan were received at the harbour offices on 2<sup>nd</sup> November and the Uncontrolled Draft Outline Business Plan Report was received on 7<sup>th</sup> November, again both by e-mail.
- 4 From the work undertaken by the Commissioners since the receipt of all the parts of the Jacobs report it is apparent that:
  - Issues such as the pedestrian and vehicular accesses and public open space are not matters of detail that can be left to a later design stage; they directly affect matters of principle and will have a very marked effect on land use at all stages of the development,
  - The Harbour Marina Development will not generate sufficient income to give it financial stability and therefore it is not sound.
- 5 The Commissioners, whilst supporting the principle of a marina development, have always maintained that any development must:
  - Meet the operational needs of the harbour,
  - Be constructed as a single unit, and
  - Be maintainable from its own estate.This representation demonstrates that this is not the case for the development set out in the AAP.
- 6 This representation has been prepared by me on behalf of and in consultation with, the Commissioners. The comments made represent my professional concerns and the views of the Commissioners. I have been engaged by the Commissioners since 2001 as the Harbour Surveyor. I assisted the Harbour Commissioners in the preparation and giving of evidence to the 2001 Public Inquiry. Since then I have been present at many of the meetings concerning the proposed harbour developments. As well as being the Harbour Surveyor, I have been jointly instructed by the Commissioners, Yorkshire Forward and the East Riding of Yorkshire Council, and separately by the East Riding of Yorkshire Council.

- 7 Some standard documents that are readily and publicly available are mentioned in this representation, but mention is also made of a Council document referred to as the Scott Wilson report of 2004. The Jacobs Report makes express reference to the Scott Wilson report.
- 8 The Commissioners consider it important that the Inspector is conversant with the background and protracted history that preceded the Jacobs Report because it explains why it has been produced now, rather than earlier, and helps set the report in context.
- 9 This statement therefore briefly sets out the important steps that led up to the production of the report, and then outlines the consultant's brief for the report, before examining in turn those parts of the report that have a bearing on the Area Action Plan. For clarity and ease of reference, paragraphs have been numbered.

## **Background to Jacobs' Report.**

### Events Post the 2001 Inquiry.

- 10 Following the 2001 Inquiry, it was decided that the Commissioners would examine the options for providing an impounded water marina within the existing harbour and the Council would concentrate their resources on improving and up-dating the Spa. It was recognised that a 'within harbour' marina would need to share the harbour with the commercial fleet as it currently does.
- 11 The Commissioners, after examining a number of proposals in consultation with harbour users, both directly and through the Harbour Consultative Body, determined on a preferred option. This preferred option was modelled by HR Wallingford, (the leading hydrodynamic centre in the country), to determine its initial hydrodynamic response. The layout was then modified slightly to give optimum performance. Once an optimum layout had been achieved that gave minimum wave disturbance within the harbour HR Wallingford undertook a sedimentation assessment. By the late summer of 2006 the Commissioners had a proposal for a marina within the existing harbour. The design of that proposal was at least as far advanced as that of the current Preferred Outline Layout that is given in the AAP.

### The Roger Tym and Partners Report.

- 12 The Commissioners' within harbour proposal had a number of very positive benefits, which have already been enumerated in the Commissioners' Representations of 31 December 2010 and elsewhere, yet the Council chose not to pursue the proposal. Instead, they commissioned five consultants, with Roger Tym & Partners as the lead consultant, "to provide an overview of Bridlington's regeneration needs, with the aim of identifying, and advising how to deliver, those projects capable of making a 'step change' in Bridlington's fortunes." Roger Tym and Partners focused on "capital projects rather than 'soft interventions' and stated that their "task was to ensure a common voice on the vision for Bridlington, the objectives for achieving it and the actions that offer the best prospect of achieving the objectives." The Commissioners were taken aback when a representative from Roger Tym and Partners (Ms. N Galley)

stated, at the first meeting with the Commissioners, that the Fishing Industry was not sustainable.

- 13 Roger Tym and Partners presented their report in July 2004. In the first section of their report they noted that the IDF “again promotes a marina” but goes on to say that “the principal constraint of the programme is that projects must be ready for delivery not later than the end of 2006 (which is a very short timetable for major capital projects).”
- 14 Under the heading ‘Public Consultation – What We Have Learned’ the Tym report has two sub-headings, ‘What is wanted’ and ‘What is liked (and needs to be preserved or made more of).’ Eleven items are listed under ‘What is wanted’, the last three of which are:
  - “Better facilities for the fishing industry (especially wanted by the fishermen)”
  - “Preservation of Bridlington’s character and identity”
  - “Better Hotels.”
- 15 Just three items were listed under ‘What is liked’, and these were:
  - “The natural assets – the seaside and access to / views of it”
  - “Bridlington’s heritage – its good old buildings, the harbour, the Old Town, Sewerby Hall”
  - “Bridlington’s character.”
- 16 The marina is not mentioned at all in the section on public consultation. Following ‘Public Consultation’ in the report is a sub-section headed ‘Big Ideas’. The ‘Big Ideas’ arose from a number of initiatives aimed at persuading Bridlington residents to put forward ideas for improving Bridlington. The Tym report lists forty six items under ‘The Public’s Big Ideas for Regeneration in Bridlington’. In this list a marina is mentioned twice, once under ‘Big Tourism Ideas’ the first item is ‘Revised marina’ and again under ‘Big Sport Ideas’ as the last item ‘Improved harbour/half-tide cill small marina’.
- 17 After the ‘Big Ideas’ the next sub-section of the Tym report is headed ‘Reasons for the Marina’s Refusal’. The second paragraph of this sub-section starts “Our main concern here (we deal with the marina itself in Section 6) is with the economic case for the marina. The basic principle is that the benefits a marina generates will need to be very substantially greater than the costs – measured financially both directly in terms of the cost project and indirectly in terms of the unavoidable disruption to business of the town during its construction, and measured environmentally in terms of the cost of the impact, during construction and on operation, on the sensitive coast and the listed piers.”
- 18 The Tym report goes on to say that:
  - “The inspector did not question that the marina, together with the development of the land in conjunction with it (which included the refurbishment of the Spa and the development of a 100 bedroom three-starred hotel to support it)..
  - He did note, however, that the major share of the economic benefits claimed for the marina would arise not from the marina itself, but from the development proposed on the 14 hectares of land to be created alongside it – particularly the refurbishment of the Spa and the proposed hotel. [sic]”

- 19 It should be noted that the refurbishment of the Spa is now complete, that the AAP anticipates that the hotel will be built on existing land, and that the major development will now take place near the railway station where it will better relate to both the public transport network and the Primary Retail Circuit proposed in the AAP. Therefore the three main economic benefits identified by the inspector are no longer linked to a marina.
- 20 The Tym report then gives the Inspector's views on the case for a 500 berth marina. In Section 5 of the report under the heading 'Demand for Marina Berths' the report states "Scott Wilson are confident that their estimate is robust, and advise that 500 is the optimum target size." This statement does not fully reflect the Scott Wilson report, and this is considered below.
- 21 The next sub-section in the Tym report is headed 'Fishing Facilities' and consists of one paragraph only. The fishermen's needs are given as "Better repair and landing facilities" and upgraded "box washing and bait storage facilities". The repair facilities now provided by the Commissioners are now among the best available along the North East Coast, with vessels now coming to Bridlington from as far north as Hartlepool to undertake repairs. The current proposals being advanced by the Council will seriously affect vessel maintenance and therefore degrade an important facility. A third landing davit was installed by the Commissioners some years ago, but has now been removed because it was unused in that position and has been relocated as a static crane. This shows that, contrary to some suggestions, that the Commissioners are pro-active.
- 22 Box washing now takes place aboard vessels on the way to the fishing grounds and the port now has sufficient frozen bait storage. The report also said that the fishermen also "needed larger and better storage tanks, and would like chilled or freezer facilities." The number of storage tanks has been increased and all tanks are fed with chilled water. There is a modern ice plant at the harbour. The only item on the fishermen's list that remains outstanding is the provision of more storage space.
- 23 Section 5 of the Tym report ends with observations on employment effects, and states near the end that "We believe that the commitment to a marina, however, would be a necessary condition to securing the needed risk investment in the town centre redevelopment". This effect has been referred to as a catalyst for investment.
- 24 It is clear that many of the supposed benefits of the marina are either already in place, or are to take place elsewhere. Further, by delaying the start of the marina until after the Burlington Parade scheme it is equally clear that the argument that a marina will be a catalyst for risk investment is invalid.
- 25 Section 6 of the Tym report summarises the Vision, Objectives and Candidate Projects. Under 'Strategic Objectives' the report lists seven objectives, only one of which mentions a marina, "to provide for water-based activities, including sailing and fishing, and to provide a suitable setting for the Spa and Development related to it." The marina is therefore only partly about providing vessel berths.

- 26 Under the next sub-section, 'Enabling Objectives', the report lists seventeen items, and in only one of them is there mention of a marina, and then in parenthesis, concerning under land assembly. The list does include meeting "where there is an economic case for doing so, the facility needs of the fishermen." and "Actively investigate the water sports market...". Clearly, when the report was written and in the opinion of the authors, there was no clear justification for a marina.
- 27 The last paragraph of this of this sub-section states:  
"Above all, it is essential that the Partnership continue to build effective working relationships with the town's principal landowning interests and the Harbour Commissioners – the participation and willing joint working with both are essential predicators to change in the Town."
- 28 The Council have demonstrably failed to do this, and the Town Council, the Lords Feoffees, and the Commissioners all have legitimate objections to the AAP.
- 29 The next part of the report then assumes that a marina will be a candidate project, even though the report authors state that the water sports market has yet to be investigated. The opening statement regarding the marina starts "Subject to a full appraisal..." and thereby qualifies the need for one. The Tym report has accepted a marina with little evidence of need, and such evidence they include has been shown to be exaggerated. However, many of their arguments remain valid if a marina were to be constructed within the existing harbour.

#### The Scott Wilson Report.

- 30 At the same time that the Council commissioned the Tym report Scott Wilson were appointed to undertake an options study for a marina at Bridlington. The marina options study was to "to examine the feasibility of developing an alternative marina option, capable of overcoming the shortcomings of the previous proposal whilst still delivering very substantial regeneration benefits."
- 31 As far as the Commissioners are aware, the Scott Wilson report was never completed and is only available as a 'Draft'.
- 32 In the opening to the Scott Wilson report the author states "For this reason the Feasibility Study necessarily assumes that the marina is a given requirement, and addresses the question of how best to implement it. The Tym report and the Scott Wilson report therefore both assume a marina will be part of the regeneration package on the strength of the Inspectors' report on the 2001 Inquiry. Regarding the size of a marina, the Inspector considered that a 500 berth marina would be the optimal size for the efficient operation of a marina.
- 33 At the 2001 Inquiry the Council claimed that a 500 berth marina was the optimal size for efficient operation. This was the opinion of an unnamed company that operates a number of marinas around Britain that the Council was proposing should run the marina on its behalf. The Commissioners had no evidence of their own at that stage to counter this opinion. The 500 berth marina was therefore based on optimum efficient management and not on an assessment of demand. It cannot be assumed that the Inspector would have come to the same conclusions had he been given the agreed

evidence now available on the realistic, but smaller, number of marina berths needed at Bridlington.

- 34 The Scott Wilson report states in the Executive Summary:-  
“An outline assessment of demand for a marina was undertaken. Although it could not be regarded as definitive, due to the scale of the study and lack of hard data, the assessment concluded that there is a demand for a 500-berth marina at Bridlington.”
- 35 In Section 6 of their report, in the sub-section titled ‘Findings’, Scott Wilson say:-  
“On the basis of the limited data available, and the stated assumptions, there is considerable potential demand for berths in the proposed marina.”  
The simple outline assessment, the small scale of the study and the lack of hard data may be considered indicative of potential, but it comes nowhere near justifying the statement in the Tym report that “Scott Wilson are confident that their estimate is robust.”
- 36 Thus both those parts of the Tym report that relate to the marina and all that part of the Scott Wilson report that follows their demand assessment are reliant on an outline assessment that the authors regard as not being definitive.
- 37 Much of the Scott Wilson report consists of the assessment of different options for the provision of a marina. All of the options considered except two were for 500-berth marinas. The two other options considered were for a 200-berth marina and a marina within the existing harbour.
- 38 Scott Wilson state that the 200-berth marina “was not carried forward to the full assessment and appraisal process as costing calculations showed that the cost of a 200-berth marina would be only marginally smaller than the cost of a 500-berth marina.” This result was inevitable given the Scott Wilson layout for a 200-berth marina. Their proposal showed the new breakwater extension to the North Pier, the most expensive element, as being identical to that provided for a 500-berth marina. The proposal also indicated the southern perimeter of the 200-berth proposal, the other main cost element, as being unnecessarily long. It is not clear why such a poor layout was put forward, but it is considered that it did not constitute a reasonable base for comparison.
- 39 The Scott Wilson report looked at an early version of the Commissioners’ proposal for a marina within the existing harbour. They called this ‘Option 4’, and state in their report that “Option 4 is considered as a ‘Do-Minimum’ should other South Harbour options not proceed.” Scott Wilson stated that the Commissioners’ proposal provided “only 100 wet berths”, whereas the proposal provided 100 berths in impounded water together with some 70 mud berths for those who did not wish to incur the additional expense of a marina berth giving a total of 170 berths.
- 40 Inexplicably, having identified a ‘Do-Minimum’ option, the Scott Wilson report did not take the ‘Do-Minimum’ option forward for comparison with the three options for a 500-berth marina that they then compared with the 2001 Inquiry Proposal.

- 41 The Scott Wilson ranked the three options and the 2001 Proposal by applying a weighted score for ‘Regeneration’, ‘Cost’, and ‘Environment’ to each. The highest ranked option scored 74%, the lowest 44% and the 2001 Proposal 51%. The Commissioners, using as far as they were able, the same scoring system as Scott Wilson, scored a Within Harbour option, and found that it ranked alongside Scott Wilson’s highest scoring option.
- 42 The Council have never explained why the Scott Wilson report ignored the ‘Do-Minimum’ option. By not testing this option, in my view, Scott Wilson undermined their own study. It is good and standard practice when considering large infrastructure schemes to test the proposals against lesser schemes to ensure that the public are getting value for money. By ignoring the ‘Do-Minimum’ option the Scott Wilson report failed to follow accepted good practice.
- 43 The Council maintain that they considered a ‘Do-Minimum’ scheme, but this was in their Sustainability Appraisal, and was not discussed with the Commissioners. In this document they only consider alternative schemes at a high level and in very little detail. A scheme of this size needed a much more rigorous approach to the alternatives.
- 44 Further, by considerably over estimating, as will be shown below, the demand for marina berths, the Scott Wilson study was, in my view, flawed at the outset and this flaw was carried over into the Tym report. The Council therefore do not have a robust justification for the marina as set out in the AAP.
- 45 As has been stated above, the Tym report and the Scott Wilson report were presented to the Council in July 2004. In September of that year the Commissioners were invited to participate in a Public Consultation organised by the Council in Bridlington. At this event proposals for harbour improvements were exhibited.

#### Events Post the Roger Tym and Partners and the Scott Wilson Reports.

- 46 In October 2004, Council and Yorkshire Forward representatives had meetings with DEFRA, DfT, ODPM, and Local MPs organised by Politics International.
- 47 The notes of the meeting with DEFRA indicated that ten issues were discussed, ranging from the possible impact on the fishing industry, through dredging volumes and disposal, to early engagement with English Nature.
- 48 The notes of the meeting with DfT showed that fourteen issues were discussed with advice received. Four issues discussed are particularly relevant, and the meeting notes on these issues, using the original numbering system, are given below:-
- “3 Regeneration issues appear to be accepted in principle but would need to know impact on other ports eg transfer because of competition issues and public funding.
  - 10 Advice that our Economic analysis should be robust and look at low demand and high cost, rather than high demand/low cost estimate – see Watchet in N Somerset for recent approval. An Economic Impact Assessment should include comparison of the difference that a marina can make to the economy of a town eg Case Studies suggest PUK!?

- 13 Specific interest for the economic assessment was the option assessment, how to reduce costs reduce scale, phasing etc What can we do for £20/25m – in value for money terms is the market there for the investment what are the risks and options.
- 14 Key message was that we must work jointly with the Commissioners – the only revision order should be to extend boundary of Harbour Commissioners jurisdiction. We said that this was expected and that discussions were to work with HC jointly on the basis that the HC would run the wet side along with operational land. [sic]”.
- 49 Item 3 of the discussions with DfT refers to funding issues. Central Government will **not** commit public funds to a scheme that will potentially be in competition with other schemes that are being, or have been, funded by them. This same point was also made to the Commissioners when they visited Government Offices on 27<sup>th</sup> April 2006.
- 50 The Scott Wilson report assumes that boats will relocate “from other marinas in the region”. The Commissioners understand that most, if not all, of the marinas in the region have received public funds, and therefore Central Government funding will exclude that element of the proposed marina that is in competition with other regional marinas.
- 51 Notwithstanding the serious weaknesses in the Scott Wilson report, in 2005 the Council produced a proposal for a 500 berth marina that was loosely based on an amalgamation of the proposals exhibited at the Public Consultation the previous September. The Commissioners were not consulted on this 2005 proposal which was drawn up by the Council internally, Scott Wilson no longer being involved.
- 52 The Council submitted this 2005 proposal to the Big Lottery Fund - Living Landmarks - The Peoples Millions. On 18<sup>th</sup> December 2006, the Report to the Council’s Corporate Management Team, in the section headed ‘Harbour and Marina Improvement Project’, stated, referring to their 2005 proposal that, having submitted a bid, the project had not been selected.
- 53 The report went on to say that the reason given for the proposal being unsuccessful was that “the (selection) Committee had doubts over its delivery and governance.” This conclusion continues to have obvious resonance today.
- 54 There was no serious engagement by the Council with the Commissioners until after the failure of the Councils Lottery bid.
- 55 On 18 December 2006, at a meeting between Yorkshire Forward, officers and members of ERYC and the Commissioners, agreement in principle was reached on a conceptual master plan “for the creation of quality waterfront development of the existing harbour and the creation of a new marina, with strong links to the town centre.”
- 56 At the same meeting it was further agreed that there were a number of issues requiring further detailed consideration. “The ‘next steps’ were identified as follows:-
- Further research on erosion and currents (H R Wallingford)

- Refurbishment of South Pier
- Number of berths in the marina
- Road design – South Cliff Road
- Detailed Urban Design
- Detailed Marina Design
- Detailed design of operational Area
- Viability/Development Appraisal.”

It was agreed that the two priority pieces of work were:-

- Further research on erosion and currents i.e. a meeting with H R Wallingford to agree brief and scope of work.
- Preparing an agreed brief to undertake a supply and demand study to identify the number of berths to be provided in the marina.”

- 57 In May 2007 Yorkshire Forward commissioned HR Wallingford to collate and review all existing hydrodynamic data. HR Wallingford reported in September 2007.
- 58 Also in May 2007 Yorkshire Forward issued a proposed brief for a Supply and Demand Assessment and Outline Business Plan. The Commissioners expressed serious concerns at joining two separate and dissimilar studies. These were overruled. In September 2007 PLB Consulting Ltd. (PLB) were appointed to undertake the Bridlington Harbour Supply and Demand Study and Outline Business Plan.
- 59 PLB issued their Final Report on the Supply and Demand Study, the first part of the brief in June 2008. PLB qualified their report as being “subject to a continuing healthy economy” and as such was accepted by the Commissioners, the Council, and Yorkshire Forward. As predicted by the Commissioners, there was insufficient information available for PLB to proceed with the Outline Business Plan.
- 60 By the autumn of 2008 proposals for a marina to accommodate the target number of yachts identified by the PLB report (250 berths with a possibility of a future 70) were far enough advanced for consideration to be given to hydrodynamic modelling of the possible options. In December HR Wallingford were engaged to do the work. In July 2009 HR Wallingford issued their report on the Phase 2 Modelling Study identifying the best proposed harbour/marina layout.
- 61 At the end of July 2009 the Commissioners returned an amended version of a consultants brief for a Financial Assessment and Outline Business Plan to Yorkshire Forward for comment and forwarding to the Council. This document was not completed even though Yorkshire Forward had prepared a draft advertisement for Expressions of Interest and prepared a Procurement Timetable.
- 62 With an initial harbour marina layout established, it was necessary to have better information on the probable areas of water needed to accommodate the marina and the commercial fleet. It was also necessary to establish the working space requirement on land for the operation of the commercial fleet. The activities and the associated land requirements for the marina had already been set out in the PLB report. However it was noted that the single paragraph in the PLB report that covered the sizes of berths to be provided was not very robust. It was therefore agreed that four named marinas in the north-east of England should be examined to establish the

probable berth mix for Bridlington. Wheeler Trevitt Consultants Ltd. (WTC) was jointly commissioned in October 2009 to undertake these studies and to produce a general arrangement drawing for the harbour/marina.

- 63 The general arrangement drawing, the Preferred Outline Layout (as shown at a reduced scale at page 50 of the AAP Submission Document October 2010), was agreed by Yorkshire Forward, the Commissioners and the Council and issued by WTC in February 2010. The Sequence of events from February 2010 is set out in more detail in Apendix A to matter 2/04 paragraphs 11-31. WTC's final report on the Marina Berth Disposition Study was presented in April 2010. Their final report on the Commercial Operations Requirement was presented in February 2011.
- 64 In February 2011 Yorkshire Forward, the Commissioners and the Council agreed a consultancy brief 'To provide a Business Plan and Technical Study (Stage 1) for the Proposed Harbour/Marina Scheme.
- 65 This brief, modified because Yorkshire Forward ceased to be involved, was sent by the Council, without competition, to Jacobs Engineering UK Ltd. who responded with a proposal on 27<sup>th</sup> April 2011. For reasons not known to the Commissioners Jacobs submitted a second proposal on 31<sup>st</sup> May 2011, and this is the proposal that was accepted by the Council.
- 66 In the introduction to their proposal Jacobs state, under "1.2 Principal Requirements":  
"A study is required principally to provide information to the Bridlington Harbour Commissioners to allow them to understand the impact on the harbour business of the initial development, and to assess the effects of the long-term development plan on the viability of the harbour operation. The study should provide reports on the impact of the initial development on the existing harbour business and on the viability of the main harbour and marina development."
- 67 This, at best, is both patronising and inaccurate. The brief for the commission required reports to be addressed to all three promoting authorities. The brief was also perfectly clear in Section 4.3.1 which stated:  
"The primary purpose of the Business Plan Study is:  
to establish [whether and] how best the proposed Harbour/Marina can be operated on a viable and sustainable business basis, and  
to identify and advise what, if anything, needs to change and/or what conditions need to be in place to ensure that the marina can operate viably on a day to day basis and accrue sufficient surplus to satisfactorily maintain the harbour and marina and to discharge statutory obligations on a long term basis."
- 68 Section 4.4.1 sets out the requirements of the Technical Study (Stage 1) as:  
"Review the current proposals and advise if any modifications....etc.  
Examine and advise upon options for conceptual engineering design....etc.  
Provide an Elemental Cost Estimate for the project.....etc.  
Provide advise and recommendations on the phasing of the project....etc. and  
Introduce a Construction Contractor to the scheme works...etc."

## Jacobs' Technical Report

- 69 Errors or omissions in the technical report will affect the proposed harbour development in two ways. Most of the content of the technical report bears on the capital cost of the development. If the technical report is inaccurate or incomplete then the probability is that the capital costs of the scheme will be under-estimated. This in turn will lead to funding problems after the works have started.
- 70 Parts of the technical report will also affect the running costs of the proposed development once built. Inaccuracies in running costs could result in the development failing due to insufficient income being generated by the development.
- 71 In the Technical Report, I and the Commissioners have concerns about the following aspects.
- Access and Public Open Space.
  - Harbour North Side.
  - Ground Investigation.
  - Dredging.
  - Disposition of Berths.
  - Car Parking.

Access and Public Open Space.

- 72 The Council are seeking to use the Harbour Top both as part of its Marina Proposal as well as its Burlington Parade proposal. Clearly the location, design and nature of the access to the public highway for both pedestrians and vehicles is very important and will have a significant impact on the shore-side activities associated with the harbour. The same applies to Burlington Parade. As has already been stated the Commissioners have been waiting for the Council, who are also the Highway Authority, to progress this matter for a long time.
- 73 Although various plans showing alternative accesses to the harbour have already been laid before the Inspector, the Technical Report deals with the issue of access in the following manner:
- “It is not feasible at this stage of the project to determine this (i.e. vehicle paths to the existing south pier) as the layout of the development and internal access arrangements will be undertaken at detail design. The details of the access arrangements would have to be considered as a part of the future design for the proposed development. It is likely that a traffic impact assessment would be required as part of the planning application.”
- The Technical Report then reproduces in very small detail the first of the Council’s access proposals, which is now out of date.
- 74 This section of the report then continues showing access to the south pier from the highway via the existing roadway from South Cliff Road. The Council’s proposals show the existing roadway subsumed in the proposed development on that part of the West End that the Council proposes to transfer to a developer in order to help fund the Burlington Parade project. It is unclear from the technical report how this issue will be resolved.

- 75 I and the Commissioners remain of the opinion that the highway access must be clearly decided at this stage not only because will it occupy a considerable area, but also because it has a very marked effect on the possible future uses of all of the land, including Clough Hole and Langdale's Wharf, at the west end of the harbour and marina development.
- 76 The Commissioners will not allow themselves to be put in a position whereby access and egress to their estate can only be achieved by crossing land in the ownership of a third party. When the Commissioners developed Clough Hole, they agreed to provide public access across their land as a substitute to the Council having to rebuild their bridge over Clough Hole. This was a substantial saving to the Council. The Commissioners also rebuilt the roadway down to the Council's car park at Langdale's Wharf and then extended it to Clough Hole. In spite of the benefits to the Council arising from the Clough Hole scheme, the Council insisted on receiving one-third of the income, after expenses, of the Clough Hole car park. The Commissioners do not wish to repeat their mistake.
- 77 The Commissioners are also of the opinion that all pedestrian routes through and across the harbour development, and all public open spaces within the harbour development must be defined and agreed before land use and development phasing can be sensibly considered. Recent drawings produced by the Council show "Harbour Square", a public open space, on what is now the east end of the Council's Langdale's Wharf car park. If this is to be public open space then it can not be used as operational land by the Commissioners.
- 78 The AAP is clear that there should be pedestrian access to the harbour from Queens Street via Garden Walk, yet the Councils' current proposals show this closed off by proposed works let into the cliff face. The views of the harbour as one walks through Garden Walk from Queens Street are some of the best in Bridlington, and in my opinion it is this approach that forms the natural pedestrian approach to the harbour, rather than from Bridge Street and Blue Billy Hill. The Garden Walk approach also links in well to both the existing Town Centre and the proposed Burlington Parade as it emerges from Sawmill Yard on to Manor Street. Burlington Parade now logically stops at Bridge Street and links into the existing town centre at Manor Street.
- 79 The Commissioners have had previous experience of late changes being made to agreements with the Council. The Commissioners agreed to allow a strip of their land to be used by the public following the demolition of the Council owned bridge over Clough Hole. At a late stage the Council insisted on additional public access being provided over and above that which had already been agreed. The Commissioners do not wish to find themselves in late negotiations with the Council.

#### Harbour North Side.

- 80 The Commissioners were unable to find in the report adequate reference to the condition of the north wall of the harbour. The north wall of the harbour, together with that at Langdale's Wharf, are owned by and are the responsibility of the Council. The agreed preferred outline layout requires the harbour bed to be dredged by some 2 metres in front of Langdale's Wharf and Harbour Road. If the existing construction is unable to accept this degree of dredging then considerable expense will be incurred in

strengthening or renewing these structures along the north side of the harbour. The Commissioners have found nothing in the Technical Report that indicates that allowance has been made for possible works along the north side of the harbour.

#### Ground Investigation.

- 81 In section 2.2.1 the Technical Report points out that there is “very little information currently available in relation to the ground conditions throughout the existing harbour basin and importantly, the proposed development site to the south of the existing harbour”.
- 82 The hydrographic survey, including bathymetry, side scan sonar and geophysical, undertaken by Shoreline Surveys in 2000 (as part of the work done for the earlier marina scheme) and work undertaken for the long sea sew outfall in 1978 both indicate the presence of bedrock and boulders close to the seabed surface in the area of beach where much of the new development will take place. Any piling works undertaken as part of the new construction may therefore be expensive.
- 83 It is known that there is an active spring near the Spa. This spring caused considerable trouble and major cost overruns to the recent refurbishment works undertaken at the Spa by the Council. This spring was the subject of considerable discussion when Scott Wilson was preparing a marina scheme in 2004. Scott Wilson was concerned that the spring might affect the stability of any proposed development.
- 84 The Scott Wilson scheme intended to use a similar method of construction to that proposed in the Technical Report. The Commissioners have been unable to find any reference to this spring, and its possible effect the development, in the report. This is a matter of importance, because a major spring close to the proposed works could potentially have a significant effect on both the capital cost and the running costs of the development.
- 85 The Technical Report mentions the need to determine the extent of possible contamination of some of the harbour bed. However, they then state that they have assumed that any contaminated material can be disposed of “at a nearby offshore dumping ground with sufficient reserve capacity”. The Commissioners are not aware of any such dumping ground.
- 86 The Commissioners are concerned that allowance for possible geophysical problems has not been fully allowed for in the capital costs of the development.

#### Dredging.

- 87 The dredging requirement for the proposed development will have more effect on the running costs of the development than on the capital costs. The Commissioners hold a licence to dump 20,000 tons of dredging spoil at sea per year. The current harbour dredging requirement uses up most of this allocation; any unused allocation cannot be carried forward to future years.
- 88 If therefore, the dredging requirement for the new development exceeds the licensed amount then the excess will have to be disposed of elsewhere. Given that the current

dumping ground is on the edge of a European Habitats SAC it is unlikely that the Commissioners' licence will be extended. Alternative disposal of excess dredgings is therefore likely to be expensive. If the material has to be disposed of on land it will be very expensive indeed.

#### Berth Disposition.

- 89 Another item that will have considerable effect on the running costs of the new development is the mix of sizes of yacht in the new marina. This is known as the 'Disposition of Berths', and a reasonably accurate forecast is needed to establish the probable income generated from berthing charges in the proposed marina.
- 90 The PLB report made an initial assessment of the berth disposition, but this only amounted to a single paragraph in their report. There were concerns that this section of the PLB report was inadequate, and therefore Wheeler Trevitt Consultants Ltd. (WTC) were commissioned to carry out additional research. The brief was specific as to which marinas were to be used as a basis for the research. Four named marinas were chosen by the joint commissioning authorities that they considered would reflect the probable mix of yachts that might be attracted to Bridlington.
- 91 Yorkshire Forward, who commissioned the report, in conjunction with the Council, then advised by Atkins Consulting, and the Commissioners all considered it important that the research should be local to the north east coast of England. To assess the probable income from yachts that might berth in the proposed marina the Technical Report chooses to use the berth disposition given in the PLB report. This was a perverse decision because the commissioning authorities had specifically commissioned a more focussed report that superseded the berth disposition proposed in the PLB report. The reason given by Jacobs was that on the West Coast of Scotland the average size of boat has risen from 35 to 40 feet (10 to 12m) over the past fifteen years. This is true, and is also true for the South Coast of England, but then these are established centres of yachting, and have been for a long time.
- 92 However, this does not mean that the trend is universal, particularly when there is some evidence that this might not be the case on the north east coast. The most recent expansion of berths at one of the north east marinas was for berths in the 7.5 to 10m range. This is the mid range of berth size, and does not reflect a trend in increasing yacht size along the north east coast of England. The danger of over estimating the average length of yacht that might use the marina is that the possible income for the marina is exaggerated. The Leigh Fisher report, drawing on the Technical Report, has significantly over estimated the probable income from marina berths by using the berth disposition given in the PLB report instead of the berth disposition agreed by the commissioning authorities. More details of this are given below when considering the Leigh Fisher report.

#### Car Parking.

- 93 A prime requirement of any top-class and successful marina is adequate car parking for marina berth holders. The recommended number of parking spaces for a 320 berth marina is 240. It will therefore be necessary to provide 240 parking spaces somewhere on the new harbour development for use by berth holders free of charge,

since the berthing fee included parking for one vehicle. There is passing mention in the Technical Report on the need for marina parking, but this does not seem to have been carried forward into the land use and economic sections of either the Technical Report or the Outline Business Plan (the Leigh Fisher Report).

### Phasing.

- 94 The Technical Report contains a section on the possible phasing options for the construction of the marina in a manner that purports to enable the West End to be transferred to a third party as part of the funding arrangements for the Burlington Parade scheme. The Jacobs report appears to be focused on a single option which has questionable justification, shows little innovation and simply re-runs the suggestions put forward some months ago by the Council without progressing them.
- 95 Whilst agreement was reached with the Council over the outline plan for the marina development, the phasing of the construction works was not. To avoid disruption during the construction works, it is abundantly clear that works should start south of the South Pier to enable the Commissioners to continue their operations. This is a matter of principle not detail.
- 96 The Commissioners are clear that any works undertaken within the harbour must not jeopardize the effective and efficient running of the harbour for the simple and obvious reason that should funding fail to materialize for the construction of the full marina scheme, the harbour must still function and generate sufficient funds to be able to maintain itself.
- 97 As a result of the waterfront at the West End moving east about 35m, some 35-40 private berths will be lost. These berths are occupied by owners based in Bridlington.
- 98 As well as resulting in the loss of berths the proposed new waterfront will cause wave reflection within the harbour unless it is within an area of impounded water. Wave reflection within the harbour will cause serious problems in easterly winds. If the commercial berths become affected by wave surge it is likely that some or all of the commercial fleet will relocate.
- 99 The Technical Report acknowledges the fishing fleet could relocate and that wave attenuation measures will be needed in the existing harbour before the waterfront can be moved east to accommodate a development at the West End. However, the measures needed are not shown in the report, nor are they costed, so the financial requirements for extending the West End in advance of the full marina are unknown.
- 100 The Technical Report briefly examines two possible options to create more land space at the West End as an interim measure. The first option is to fill even more of the harbour. The Commissioners consider this unacceptable.
- 101 The second option is to extend out on to the South Beach, either to the full extent of the proposed scheme, or for part of it. Although attractive at first sight, this proposal has several drawbacks, the more important ones being;
- i) The significant cost of the works particularly because the wave attenuation measures within the harbour will still need to be done.

- ii) The new land will be very exposed and subject to significant amounts of salt spray.
  - iii) The new land will be isolated from the rest of the harbour.
  - iv) The new land will be adjacent to the Spa and therefore will need to be used in a manner that does not downgrade the Spa.
  - v) The backwash from waves breaking in the re-entrant angle between the new east face of the fill and the existing south pier may cause significant local beach scour and therefore protective measures will be needed to prevent the foundations of the south pier being undermined near the proposed works.
  - vi) As mentioned earlier consideration will have to be given to the spring that rises by the Spa to prevent the new fill becoming unstable.
- 102 There appears to be a failure within the report to understand the significance and seriousness of some of the proposed phasing arrangements.
- 103 When considering the phasing of the works it should be remembered that the Local Authority that determined the application for a marina at Wilsthorpe, (a predecessor to the current Council), made it a condition of granting planning permission that the marine works should be undertaken in full prior to the start of any landside development.

### **Leigh Fisher Outline Business Plan Report**

- 104 The Leigh Fisher report contains a considerable quantity of material relating to the phasing of the construction, yet this is only of secondary importance. The primary objective is to show whether or not the harbour development, on completion and with start-up problems sorted out, will generate sufficient excess of income over expenditure to provide a viable and sustainable enlarged harbour that is maintainable from its own estate.
- 105 The current harbour generates approximately £120,000 excess of income over expenditure prior to depreciation and the like. This excess of income over expenditure, referred to below as capital income, is allowed, subject to contingencies, to build up until there is sufficient capital to undertake more major works. The Capital Income is not excessive and the Commissioners are constantly seeking ways of improving it. More pontoon berths are being installed this winter to improve the income from private craft. Wind farm developers have been in negotiation with the harbour and are now using it, so the future capital income will increase.
- 106 In view of the increased size of the harbour and marina and because of the extended elevated walkway along the new main pier and the exposed position of the extension to the north pier, the Commissioners consider that, as a minimum, the enlarged harbour should generate twice the capital income to that generated by the current harbour. Expressed in percentage terms the capital income should be an absolute minimum of 200% of the current capital income of the existing harbour expressed in 2011 values.
- 107 The harbour forms the sea defences for the land, buildings and infrastructure behind it. Because of the harbours position close to the centre of Bridlington, loss of the sea

defences would have very serious consequences for the town as a whole. Whilst grants are sometimes available for capital sea defence works, general maintenance has to be funded from revenue.

- 108 As set out in the Appendix the proposed harbour development does not meet the basic requirement of generating sufficient capital income to maintain the harbour and marina and therefore the Commissioners consider that the proposed scheme is not viable and is therefore not justified or deliverable.
- 109 I consider that the Leigh Fisher report assigns too great an income to the following:
- i) Fish landing dues,
  - ii) Harbour dues,
  - iii) Property rental,
  - iv) Annual marina berthing charges,
  - v) Visitor berthing charges,
  - vi) Car parking.
- 110 I also consider that the expenditure identified in the Leigh Fisher report to be underestimated for dredging, maintenance and insurance.
- 111 I am concerned that the Leigh Fisher report did not include income and expenditure for the ablutions block, even though this is potentially a high maintenance item, and overcharging for such an essential facility can have knock on effects for the marina occupancy level.
- 112 I am also concerned that there is no item to cover the lease of the sea bed, needed to build the harbour extension, from the Crown Estate.
- 113 Of particular concern is that the Leigh Fisher report calculated the income from marina berths by multiplying the berth length by the annual charge per metre. Marinas charge not by the nominal length of berth occupied but by the length of the vessel occupying the berth. Since the length of the vessel is usually less than the nominal berth length, the Leigh Fisher report has not only over estimated the marina income by not taking into account local factors affecting boat sizes, but also by assuming every vessel in the marina will be the maximum size for the berth. This is clearly insupportable.
- 114 I consider that the Leigh Fisher report fails to take account of the significant and continuous downward trends in the participation in any boating activity identified in the 'Watersports and Leisure Participation Survey 2010' (W &LP Survey) published by the British Marine Federation with the MCA, the RYA and others. This survey has been undertaken annually since 2002, with information gathered in September each year and published the following spring.
- 115 Figure 3 of the W & LP Survey plots the overall trend in participation for 'any boating activity' against the participation rate expressed as a percentage. The regression line on Figure 3 shows a declining trend in participation amounting to nearly 2% over 9 years. Figure 9 of the W & LP Survey shows the best fit trend lines for 'any boating activity' for three age groups over the nine years of the survey. Figure 9 shows that the participation among the younger age group, 16-34 years, has

been declining steadily over the nine years, from over 14% in 2002 to under 8% in 2010. The 35-54 age group has maintained a trend line participation rate at about 8%, although since 2007 the actual participation rate (as opposed to the trend line) has fallen from just under 10% in 2007 to a little under 7% in 2010, a fall of 3% over three years. The over 55 age group has increased their participation slightly over the nine years of the survey, although from 2007 to 2010 the participation rate has remained nearly constant. However the over 55 age group has the lowest participation rate of the age groups, and therefore has least overall effect.

- 116 The figures quoted above are for the total participation over one year in each of twelve boating and watersport activities. The twelve activities range from canoeing to yacht racing, with the categories most relevant to the proposed marina at Bridlington being Motor boating/Cruising, Power boating, Yacht cruising and Yacht racing. Figure 16 of the W & LP Survey shows the participation trends in the UK for sailing sports, power sports and manual sports. Figure 16 uses a different percentage base to Figures 3 and 9 mentioned above, but still indicates trends over the live of the survey. Motor boating/Cruising participation levels fell quite markedly from a high of c.88% in 2004 to a low of 70% in 2005, but since then have made a slight recovery to c.76% in 2010. Power boating participation stayed approximately constant at c.72% between 2003 and 2008, when there was a local peak at about 76%, before declining to c.65% in 2010. Yacht racing participation fell from a high of c.100% to c.82% in 2007, before rising again to c.97% in 2009 and then dropping slightly to c.94% in 2010. Ignoring an isolated drop in 2005, participation in yacht cruising remained about constant at a little over 80% until 2006, but thereafter has declined to c.75% in 2010.
- 117 Regional variations and the like need to be taken into account when using the trends given in the W & LP Survey. None the less the survey indicates a decline in the four watersport activities that will contribute most of the vessels likely to use a marina at Bridlington.
- 118 However, in my opinion the more significant trend is the dramatic decline over the last nine years in the number of 16-34 year age group. Even if this steep decline flattens out and recovers a little, there will still be fewer people entering marina based watersports in the future. This means that as the older age group retires from participation the total number of people actively participating in marina based watersports will fall.
- 119 I also consider that insufficient account has been taken of the reasons for the current increase in marina demand, and their transitory nature, set out in the report 'Economic Benefits of Coastal Marinas – UK and Channel Islands' published by the British Marine Federation with the Crown Estate and others in 2007. This economic benefits study states that one reason why there is a demand for marina berths is that demand is being driven by the ageing (and increasingly affluent) UK population as marina users tend to be over 55 and of the AB social group.
- 120 The economic benefit study goes on to say that the wealth of the over 55s has evolved partly as a result of significant appreciation in property values. The study also says that the current level of wealth of the over 55s "is unlikely to be repeated in future generations."

- 121 For these reasons I consider that the occupancy level of the proposed marina over the medium and longer term time frame may well be less than the 90-95% given in the Leigh Fisher report and that an occupancy level of 85% or lower needs to be considered. Because of the increase in the number of berths in the last ten or so years, it is possible that, with falling numbers of people participating in watersports, supply may outstrip demand. In which case charge rates will fall. There is already some evidence of charge rates beginning to stagnate because some marinas are now offering significant discounts on early full payment of the annual charge, resulting in little or no charge increase on the previous year for those will and able to pay their berthing charge early..
- 122 By failing to take these factors into account I consider that the Leigh Fisher report over states the probable income of the marina. If the occupancy of the proposed marina falls to 85% instead of Leigh Fishers assumed 90-95%, or if market pressure reduces the berthing charge to an equivalent to that charged 5 years ago (2006) then the combined harbour and marina capital income falls to the level currently achieved by the harbour alone in better years as shown in columns 7 and 8 on the attached income and expenditure spread sheet. Considerable weight should be attached to the capital income shown in Columns 7 and 8 of the spread sheet because there is a convergence of the value of the capital income using two different approaches.
- 123 In conclusion I consider that the Jacobs Report underestimates the difficulties of phasing any development. The points raised in this statement I consider to be points that can not be left until a later design stage but go to the principle and delivery of the proposed marina and Burlington Parade because the two schemes are needlessly linked by the 'Harbour Top'.
- 124 I also conclude that the Jacobs Report fails to make a financial case for a marina, and on closer examination of the berthing proposals consider that the financial prospects of the combined harbour/marina project are so poor in the medium and long term that it is probable that the harbour/marina will fail and in doing so will have serious consequences for both the Town and the newly refurbished Spa.

## Marina Berth Income

### Typical Marina Berthing Charges in the North East

	Year	2001	2006	2011	
Hull	Gross	120.00	140.00	216.00	
Harlepool	Gross	98.00	188.00	236.00	
Royal Quays	Gross	147.25	185.25	235.50	
Amble	Gross	170.00	180.00	239.50	
<b>Average</b>	Gross	133.81	173.31	231.75	220 )Rate for Hull, the nearest
	VAT	17.5%	17.5%	20.0%	)major marina.
	Net	113.88	147.50	193.13	183.33
Assumed Net Berth Charge: £ /m/annum.		115.00	150.00	200.00	183.00 )Used By
Correction for Inflation at 2.5%/annum		150.00	170.00	200.00	183.00 )LF
Seasonal Correction for yachts taken off site is 15%					

Nominal Berth Length <u>PLB</u>	6m	8m	10m	12m	13.5m	15m	Total
No. of Berths Available		138	102	54	26		320
Available metrage	0	1,104	1,020	648	351	0	3,123
Utilised metrage at <b>94%</b>	0	1,033	955	607	329	0	2,923
Annual Income at £183/m/yr.	0	189,102	174,714	110,995	60,122	0	534,932
Annual Income at £170/m/yr.	0	175,668	162,302	103,110	55,851	0	496,932
Annual Income at £150/m/yr.	0	155,002	143,208	90,979	49,280	0	438,469
Seasonal Correction, £183/m/yr	0	28,365	26,207	16,649	9,018	0	80,240
Seasonal Correction, £170/m/yr	0	26,350	24,345	15,466	8,378	0	74,540
Seasonal Correction, £150/m/yr	0	23,250	21,481	13,647	7,392	0	65,770
Corrected Income, £183/m/yr	0	160,737	148,507	94,345	51,104	0	454,693
Corrected Income, £170/m/yr	0	149,318	137,957	87,643	47,473	0	422,392
Corrected Income, £1150/m/yr	0	131,751	121,727	77,332	41,888	0	372,699
<b>Average Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	60	78	102	54	10	16	320
Available metrage	360	624	918	594	130	224	2,850
Utilised metrage at <b>94%</b>	337	584	859	556	122	210	2,668
Seasonal correction (15%)	286	496	730	473	103	178	2,267
Annual Income at £183/m/yr.	52,414	90,851	133,656	86,483	18,927	32,613	414,945
Annual Income at £170/m/yr.	48,691	84,397	124,161	80,340	17,583	30,296	385,468
Annual Income at £150/m/yr.	42,962	74,468	109,554	70,888	15,514	26,732	340,119
<b>Average Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	60	78	102	54	10	16	320
Available metrage	360	624	918	594	130	224	2,850
Utilised metrage at <b>90%</b>	324	562	826	535	117	202	2,565
Seasonal correction (15%)	275	477	702	454	99	171	2,180
Annual Income at £183/m/yr.	50,398	87,357	128,515	83,157	18,199	31,359	398,986
Annual Income at £170/m/yr.	46,818	81,151	119,386	77,250	16,907	29,131	370,643
Annual Income at £150/m/yr.	41,310	71,604	105,341	68,162	14,918	25,704	327,038
<b>Average Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	60	78	102	54	10	16	320
Available metrage	360	624	918	594	130	224	2,850
Utilised metrage at <b>80%</b>	288	499	734	475	104	179	2,280
Seasonal correction (15%)	245	424	624	404	88	152	1,938
Annual Income at £183/m/yr.	44,798	77,651	114,236	73,917	16,177	27,875	354,654
Annual Income at £170/m/yr.	41,616	72,134	106,121	68,666	15,028	25,894	329,460
Annual Income at £150/m/yr.	36,720	63,648	93,636	60,588	13,260	22,848	290,700

**WTC**

Average <b>Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	64	84	96	48	20	8	320
Available metrage	384	672	864	528	260	112	2,820
Utilised metrage at <b>94%</b>	359	629	809	494	243	105	2,640
Annual Income at £183/m/yr.	65,775	115,106	147,993	90,440	44,535	19,184	483,032
Annual Income at £170/m/yr.	61,102	106,929	137,480	84,015	41,371	17,821	448,718
Annual Income at £150/m/yr.	53,914	94,349	121,306	74,131	36,504	15,725	395,928
Seasonal Correction, £183/m/yr	9,866	17,266	22,199	13,566	6,680	2,878	72,455
Seasonal Correction, £170/m/yr	9,165	16,039	20,622	12,602	6,206	2,673	67,308
Seasonal Correction, £150/m/yr	8,087	14,152	18,196	11,120	5,476	2,359	59,389
Corrected Income, £183/m/yr	55,908	97,840	125,794	76,874	37,855	16,307	410,577
Corrected Income, £170/m/yr	51,937	90,889	116,858	71,413	35,166	15,148	381,411
Corrected Income, £1150/m/yr	45,827	80,196	103,110	63,012	31,028	13,366	336,539

Average <b>Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	64	84	96	48	20	8	320
Available metrage	384	672	864	528	260	112	2,820
Utilised metrage at <b>90%</b>	346	605	778	475	234	101	2,538
Annual Income at £183/m/yr.	63,245	110,678	142,301	86,962	42,822	18,446	464,454
Annual Income at £170/m/yr.	58,752	102,816	132,192	80,784	39,780	17,136	431,460
Annual Income at £150/m/yr.	51,840	90,720	116,640	71,280	35,100	15,120	380,700
Seasonal Correction, £183/m/yr	9,487	16,602	21,345	13,044	6,423	2,767	69,668
Seasonal Correction, £170/m/yr	8,813	15,422	19,829	12,118	5,967	2,570	64,719
Seasonal Correction, £150/m/yr	7,776	13,608	17,496	10,692	5,265	2,268	57,105
Corrected Income, £183/m/yr	53,758	94,077	120,956	73,917	36,399	15,679	394,786
Corrected Income, £170/m/yr	49,939	87,394	112,363	68,666	33,813	14,566	366,741
Corrected Income, £1150/m/yr	44,064	77,112	99,144	60,588	29,835	12,852	323,595

Average <b>Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	64	84	96	48	20	8	320
Available metrage	384	672	864	528	260	112	2,820
Utilised metrage at <b>85%</b>	326	571	734	449	221	95	2,397
Annual Income at £183/m/yr.	59,731	104,530	134,395	82,130	40,443	17,422	438,651
Annual Income at £170/m/yr.	55,488	97,104	124,848	76,296	37,570	16,184	407,490
Annual Income at £150/m/yr.	48,960	85,680	110,160	67,320	33,150	14,280	359,550
Seasonal Correction, £183/m/yr	8,960	15,679	20,159	12,320	6,066	2,613	65,798
Seasonal Correction, £170/m/yr	8,323	14,566	18,727	11,444	5,636	2,428	61,124
Seasonal Correction, £150/m/yr	7,344	12,852	16,524	10,098	4,973	2,142	53,933
Corrected Income, £183/m/yr	50,772	88,850	114,236	69,811	34,377	14,808	372,853
Corrected Income, £170/m/yr	47,165	82,538	106,121	64,852	31,935	13,756	346,367
Corrected Income, £1150/m/yr	41,616	72,828	93,636	57,222	28,178	12,138	305,618

Average <b>Vessel Length</b> in Berth	6	8	9	11	13	14	
No. of Berths Available	64	84	96	48	20	8	320
Available metrage	384	672	864	528	260	112	2,820
Utilised metrage at <b>80%</b>	307	538	691	422	208	90	2,256
Annual Income at £183/m/yr.	56,218	98,381	126,490	77,299	38,064	16,397	412,848
Annual Income at £170/m/yr.	52,224	91,392	117,504	71,808	35,360	15,232	383,520
Annual Income at £150/m/yr.	46,080	80,640	103,680	63,360	31,200	13,440	338,400
Seasonal Correction, £183/m/yr	8,433	14,757	18,973	11,595	5,710	2,460	61,927
Seasonal Correction, £170/m/yr	7,834	13,709	17,626	10,771	5,304	2,285	57,528
Seasonal Correction, £150/m/yr	6,912	12,096	15,552	9,504	4,680	2,016	50,760
Corrected Income, £183/m/yr	47,785	83,624	107,516	65,704	32,354	13,937	350,921
Corrected Income, £170/m/yr	44,390	77,683	99,878	61,037	30,056	12,947	325,992
Corrected Income, £1150/m/yr	39,168	68,544	88,128	53,856	26,520	11,424	287,640

## Appendix

### Bridlington Harbour and Marina: Cash Flows at Current Year, Year 0 and 15 Years after Opening

#### Notes:

The Leigh Fisher report anticipates that the occupancy level will be between 90% and 95%. In view of both the deteriorating economic climate, and the decline in young people taking up sailing, occupancy levels of 85% and 80% have been tested. The berth charge used in the Leigh Fisher Report is slightly above the charge for 2011 levied by the marina at Hull, exclusive of VAT. As a worst case the Commissioners (BHC) have assumed that in the future berth charges may fall back to 2006 values, corrected for inflation, and again exclusive of VAT.

The Leigh Fisher report has applied the marina charges to the length of the berth, regardless of the length of vessel occupying the berth. Marinas charge by the length of vessel. The Commissioners have assumed that the majority of berths will be occupied by vessels of the mean length for the berth.

Income and expenditure are expressed in £1,000.

#### Marina Berth Assumptions:

Occupancy Level	94%	94%	94%	90%	85%	90%	80%
Berth Charge (per m, per year.)	£183	£183	£183	£183	£183	£170	£170
Charge Application	Berth	Berth	Vessel	Vessel	Vessel	Vessel	Vessel

Column Number	1	2	3	4	5	6	7	8	9
Year	3 Year Average 2009-11	Leigh Fisher Year 0	Leigh Fisher Year 15	BHC Year 15 A	BHC Year 15 B	BHC Year 15 C	BHC Year 15 D	BHC Year 15 E	BHC Year 15 F
<b>INCOME (x £1,000)</b>									
<b>Harbour Operations</b>									
<b>Harbour Dues:</b>									
Fish Landings	207	210	230	205	205	205	205	205	205
Commercial	37	90	60	40	40	40	40	40	40
Private Craft	51								
Visitors	0								
<b>Property Rental:</b>									
Crane Wharf	89	200	170	90	90	90	90	90	90
Fish Quay	24			25	25	25	25	25	25
Warehouses	22			45	45	45	45	45	45
West End	66								
<b>Car Parking:</b>									
Clough Hole	108	150	255						
West End	37			12	12	12	12	12	12
<b>Harbour Facilities:</b>									
Boat Hoist	21	33	47	35	35	35	35	35	35
VMF	6			8	8	8	8	8	8
Ice Plant	6			5	5	5	5	5	5
<b>Other:</b>									
CW Toilets	8	10	10	10	10	10	10	10	10
Sundry	1		0	1	1	1	1	1	1
Bank Interest	2			1	1	1	1	1	1
<b>Total Harbour Revenue</b>	<b>685</b>	<b>693</b>	<b>772</b>	<b>477</b>	<b>477</b>	<b>477</b>	<b>477</b>	<b>477</b>	<b>477</b>
<b>Marina Operations</b>									
<b>Charges:</b>									
Annual Berthing			533	535	483	465	439	431	384
Visitors Berthing			27	10	10	8	6	8	5
Seasonal Adjustment			-80	-80	-72	-70	-66	-65	-56
<b>Consumables:</b>									
Elec & water			3	3	3	3	2	3	2
Fuel			78	78	78	75	66	78	66
Gas			3	3	3	3	3	3	2
Ablutions Block				8	8	8	7	8	7
<b>Total Marina Revenue</b>	<b>0</b>	<b>0</b>	<b>564</b>	<b>557</b>	<b>513</b>	<b>492</b>	<b>457</b>	<b>466</b>	<b>410</b>
<b>TOTAL INCOME</b>	<b>685</b>	<b>693</b>	<b>1,336</b>	<b>1,034</b>	<b>990</b>	<b>969</b>	<b>934</b>	<b>943</b>	<b>887</b>

Column Number	1	2	3	4	5	6	7	8	9
Year	3 Year Average 2009-11	Leigh Fisher Year 0	Leigh Fisher Year 15	BHC Year 15 A	BHC Year 15 B	BHC Year 15 C	BHC Year 15 D	BHC Year 15 E	BHC Year 15 F
<b>EXPENDITURE</b>									
<b>Revenue Expenditure</b>									
<b>Harbour Maintenance:</b>									
Ice Plant	2	60	40	2	2	2	2	2	2
Works etc.	90			90	90	90	90	90	90
<b>Dredging:</b>									
Hire	30	48	48	30	30	30	30	30	30

Licence	5			8	8	8	8	8	8
Property Maintenance	6	50	50	6	6	6	6	6	6
Car Park Costs	33	35	10	11	11	11	11	11	11
Utilities	51	60	70	55	55	55	55	55	55
Staff Costs	240	240	259	260	260	260	260	260	260
Insurance	27	30	30	27	27	27	27	27	27
Rates	15	15	15	15	15	15	15	15	15
Office/Admin Costs	13	15	15	15	15	15	15	15	15
Fees	29	30	30	30	30	30	30	30	30
Finance etc.	5	4	4	5	5	5	5	5	5
Other: Misc	4	5	5	4	4	4	4	4	4
Subscriptions etc.	7			10	10	10	10	10	10
Lock Maintenance (see Marina)			0						
Marketing	0	1	1						
<b>Total Harbour Expenditure</b>	<b>557</b>	<b>593</b>	<b>577</b>	<b>568</b>	<b>568</b>	<b>568</b>	<b>568</b>	<b>568</b>	<b>568</b>
<b>Marina Annual Expenditure</b>									
Marketing	1		0	0	0	0	0	0	0
<b>Dredging:</b> Hire			15	20	20	20	20	20	20
Disposal				10	10	10	10	10	10
Lock Maintenance			50	50	50	50	50	50	50
Pontoon Maintenance			58	58	58	58	58	58	58
Security			15	15	15	15	15	15	15
Advertising			5	5	5	5	5	5	5
Marina Office Staff			138	138	138	138	138	138	138
Marina Office Running Costs			10	10	10	10	10	10	10
Business Rates			20	20	20	20	20	20	20
Insurance			10	20	20	20	20	20	20
Fees & Audit			10	10	10	10	10	10	10
Bad Debts			1	1	1	1	1	1	1
Fixed Utilities			22	22	22	22	22	22	22
Hook-up Utilities			2	2	2	2	2	2	2
Fuel Sales			57	57	57	54	48	54	48
Gas Sales			2	2	2	2	2	2	1
Ablutions				7	7	7	6	7	6
Lease of Sea Bed			?	?	?	?	?	?	?
<b>Total Marina Expenditure</b>	<b>1</b>	<b>0</b>	<b>415</b>	<b>447</b>	<b>447</b>	<b>444</b>	<b>437</b>	<b>444</b>	<b>436</b>
<b>Lifecycle Expenditure</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>
<b>TOTAL EXPENDITURE</b>	<b>558</b>	<b>593</b>	<b>1,012</b>	<b>1035</b>	<b>1035</b>	<b>1032</b>	<b>1025</b>	<b>1032</b>	<b>1024</b>
<b>TOTAL INCOME (Brought forward)</b>	<b>685</b>	<b>693</b>	<b>1,336</b>	<b>1034</b>	<b>990</b>	<b>969</b>	<b>934</b>	<b>943</b>	<b>887</b>
<b>BALANCE</b>	<b>127</b>	<b>100</b>	<b>324</b>	<b>-1</b>	<b>-45</b>	<b>-63</b>	<b>-91</b>	<b>-89</b>	<b>-137</b>
Unidentified Car Park Income				255	255	255	255	255	255
Unidentified Car Park Expenditure				-22	-22	-22	-22	-22	-22
<b>REVISED BALANCE (x £1,000)</b>			<b>325</b>	<b>232</b>	<b>188</b>	<b>170</b>	<b>142</b>	<b>144</b>	<b>96</b>
Percentage Gain on Current Balance.	100%	83%	270%	190%	152%	137%	114%	115%	75%

Marina Berth Assumptions:

Occupancy Level	94%	94%	94%	90%	85%	90%	80%
Berth Charge (per m, per year.)	£183	£183	£183	£183	£183	£170	£170
Charge Application	Berth	Berth	Vessel	Vessel	Vessel	Vessel	Vessel

## Appendix

### Bridlington Harbour and Marina: Cash Flows at Current Year, Year 0 and 15 Years after Opening

#### Notes:

The Leigh Fisher report anticipates that the occupancy level will be between 90% and 95%. In view of both the deteriorating economic climate, and the decline in young people taking up sailing, occupancy levels of 85% and 80% have been tested. The berth charge used in the Leigh Fisher Report is slightly above the charge for 2011 levied by the marina at Hull, exclusive of VAT. As a worst case the Commissioners (BHC) have assumed that in the future berth charges may fall back to 2006 values, corrected for inflation, and again exclusive of VAT.

The Leigh Fisher report has applied the marina charges to the length of the berth, regardless of the length of vessel occupying the berth. Marinas charge by the length of vessel. The Commissioners have assumed that the majority of berths will be occupied by vessels of the mean length for the berth.

Income and expenditure are expressed in £1,000.

#### Marina Berth Assumptions:

Occupancy Level	94%	94%	94%	90%	85%	90%	80%
Berth Charge (per m, per year.)	£183	£183	£183	£183	£183	£170	£170
Charge Application	Berth	Berth	Vessel	Vessel	Vessel	Vessel	Vessel

Column Number	1	2	3	4	5	6	7	8	9
Year	3 Year Average 2009-11	Leigh Fisher Year 0	Leigh Fisher Year 15	BHC Year 15 A	BHC Year 15 B	BHC Year 15 C	BHC Year 15 D	BHC Year 15 E	BHC Year 15 F
<b>INCOME (x £1,000)</b>									
<b>Harbour Operations</b>									
<b>Harbour Dues:</b>									
Fish Landings	207	210	230	205	205	205	205	205	205
Commercial	37	90	60	40	40	40	40	40	40
Private Craft	51								
Visitors	0								
<b>Property Rental:</b>	201	200	170	160	160	160	160	160	160
<b>Car Parking:</b>									
Clough Hole	108	150	255	250	250	250	250	250	250
West End	37			12	12	12	12	12	12
<b>Harbour Facilities:</b>	33	33	47	48	48	48	48	48	48
<b>Other:</b>									
CW Toilets	8	10	10	10	10	10	10	10	10
Sundry	1		0	1	1	1	1	1	1
Bank Interest	2			1	1	1	1	1	1
<b>Total Harbour Revenue</b>	<b>685</b>	<b>693</b>	<b>772</b>	<b>727</b>	<b>727</b>	<b>727</b>	<b>727</b>	<b>727</b>	<b>727</b>
<b>Marina Operations</b>									
<b>Charges:</b>									
Annual Berthing			533	535	483	465	439	431	384
Visitors Berthing			27	10	10	8	6	8	5
Seasonal Adjustment			-80	-80	-72	-70	-66	-65	-56
<b>Consumables:</b>									
Elec & water			3	3	3	3	2	3	2
Fuel			78	78	78	75	66	78	66
Gas			3	3	3	3	3	3	2
Ablutions Block				8	8	8	7	8	7
<b>Total Marina Revenue</b>	<b>0</b>	<b>0</b>	<b>564</b>	<b>557</b>	<b>513</b>	<b>492</b>	<b>457</b>	<b>466</b>	<b>410</b>
<b>TOTAL INCOME</b>	<b>685</b>	<b>693</b>	<b>1,336</b>	<b>1,284</b>	<b>1,240</b>	<b>1,219</b>	<b>1,184</b>	<b>1193</b>	<b>1,137</b>

Column Number	1	2	3	4	5	6	7	8	9
Year	3 Year Average 2009-11	Leigh Fisher Year 0	Leigh Fisher Year 15	BHC Year 15 A	BHC Year 15 B	BHC Year 15 C	BHC Year 15 D	BHC Year 15 E	BHC Year 15 F
<b>EXPENDITURE</b>									
<b>Revenue Expenditure</b>									
Harbour Maintenance	92	60	40	92	92	92	92	92	92
Property Maintenance	6	50	50	6	6	6	6	6	6
Dredging	35	48	48	38	38	38	38	38	38
Car Park Costs	33	35	10	33	33	33	33	33	33
Utilities	51	60	70	55	55	55	55	55	55
Staff Costs	240	240	259	260	260	260	260	260	260
Insurance	27	30	30	27	27	27	27	27	27

Rates	15	15	15	15	15	15	15	15	15
Office/Admin Costs	13	15	15	15	15	15	15	15	15
Fees	29	30	30	30	30	30	30	30	30
Finance etc.	5	4	4	5	5	5	5	5	5
Other: Misc	4	5	5	4	4	4	4	4	4
Subscriptions etc.	7			10	10	10	10	10	10
Lock Maintenance (see Marina)									
Marketing	0	1	1						
<b>Total Harbour Expenditure</b>	<b>557</b>	<b>593</b>	<b>577</b>	<b>590</b>	<b>590</b>	<b>590</b>	<b>590</b>	<b>590</b>	<b>590</b>
<b>Marina Annual Expenditure</b>									
Marketing	1		0	0	0	0	0	0	0
<b>Dredging:</b> Hire			15	20	20	20	20	20	20
Disposal				10	10	10	10	10	10
Lock Maintenance [and sluices]			50	60	60	60	60	60	60
Pontoon Maintenance			58	58	58	58	58	58	58
Security			15	15	15	15	15	15	15
Advertising			5	5	5	5	5	5	5
Marina Office Staff			138	138	138	138	138	138	138
Marina Office Running Costs			10	10	10	10	10	10	10
Business Rates			20	20	20	20	20	20	20
Insurance			10	20	20	20	20	20	20
Fees & Audit			10	10	10	10	10	10	10
Bad Debts			1	1	1	1	1	1	1
Fixed Utilities			22	22	22	22	22	22	22
Hook-up Utilities			2	2	2	2	2	2	2
Fuel Sales			57	57	57	54	48	54	48
Gas Sales			2	2	2	2	2	2	1
Ablutions				7	7	7	6	7	6
Lease of Sea Bed			?	?	?	?	?	?	?
<b>Total Marina Expenditure</b>	<b>1</b>	<b>0</b>	<b>415</b>	<b>457</b>	<b>457</b>	<b>454</b>	<b>447</b>	<b>454</b>	<b>446</b>
<b>Lifecycle Expenditure</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>
<b>TOTAL EXPENDITURE</b>	<b>558</b>	<b>593</b>	<b>1,012</b>	<b>1067</b>	<b>1067</b>	<b>1064</b>	<b>1057</b>	<b>1064</b>	<b>1056</b>
<b>TOTAL INCOME (Brought forward)</b>	<b>685</b>	<b>693</b>	<b>1,336</b>	<b>1284</b>	<b>1240</b>	<b>1219</b>	<b>1184</b>	<b>1193</b>	<b>1137</b>
<b>BALANCE = CAPITAL INCOME</b>	<b>127</b>	<b>100</b>	<b>324</b>	<b>217</b>	<b>173</b>	<b>155</b>	<b>127</b>	<b>129</b>	<b>81</b>
Percentage Gain on Current Balance.	106%	83%	270%	181%	144%	129%	106%	108%	68%

Marina Berth Assumptions:

Occupancy Level	94%	94%	94%	90%	85%	90%	80%
Berth Charge (per m, per year.)	£183	£183	£183	£183	£183	£170	£170
Charge Application	Berth	Berth	Vessel	Vessel	Vessel	Vessel	Vessel