



Portfolio Holder Report

The portfolio holder will make a decision on this item after seven days have elapsed (including the date of publication).

Report of:	Portfolio Holder	Date of publication
Mark Billington, Service Director People and Places	Councillor Alan Vincent, Resources Portfolio Holder and Councillor Roger Berry, Neighbourhood Services and Community Safety Portfolio Holder	18 October 2018

Wyre Beach Management Scheme

1. Purpose of report

- 1.1 To seek approval to undertake studies to develop a business case for the Wyre Beach Management scheme using a preferred consultant and specialist researchers to undertake monitoring and consultation studies.

2. Outcomes

- 2.1 The Wyre Beach Management Scheme will be developed.

3. Recommendations

- 3.1 That approval is given to undertake studies as approved by the Environment Agency (EA) in order to prepare a business case for the Wyre Beach Management Scheme to secure Flood Defence Grant in Aid (FDGiA) funding for the design and construction of the scheme.
- 3.2 That approval is given for the Head of Engineering Services to enter into an agreement with Jacobs consultants to assist in the development of studies and a business case as outlined in the approved application to the EA. A direct appointment is proposed using the EA's Water and Environmental Management (WEM) framework.
- 3.3 That approval is given to allow for the appointment of consultants under the exemptions to Contract Procedures contained within the Financial Regulations and Financial Procedure Rules to appoint specialist researchers to undertake monitoring and consultation studies as detailed in the application to the EA on the grounds that the goods, works or

services are of a specialised nature carried out by only one or a limited number of firms with no reasonably satisfactory alternatives available.

4. Background

- 4.1** Approval to prepare an application to undertake studies leading to a business case to the EA was given by the Resources and Neighbourhood Services and Community Safety Portfolio Holders on 9 March 2017. The application was submitted and was subsequently formally approved on 15 August 2018. The approval gives authority to proceed with works identified in the application to an estimated value of £415,000.
- 4.2** The Beach Management scheme aims to maintain beach levels along the frontage through a combination of beach control structures and beach management. The scheme will protect over 11,000 properties between the boundary at Cleveleys and Fleetwood ferry dock. Works are likely to involve improvements to beach control structures and defences at Cleveleys, Rossall South and Fleetwood North (including dune management) and beach management of the whole frontage such that the strategically optimised standard of protection of 1 in 200yrs is maintained.
- 4.3** In order to progress the scheme Jacobs consultants have identified computational modelling, environmental input and option analysis based upon their extensive knowledge of the north west coast and similar beach management schemes elsewhere.
- 4.4** Further on site monitoring of the coastline extending the commissioned works for monitoring the beaches at the Rossall North scheme is proposed. This will extend the monitoring to cover the full coastline covered by the beach management scheme. This specialist area has been developed by a north west company, Marlan Maritime Technologies, and will provide real time wave current and sediment movement data to inform and verify the Jacob's models
- 4.5** The studies will be complemented by a community based consultation building on the work undertaken at Rossall. The objective of this consultation is to develop the community's understanding of coastal processes and is an important part of the scheme in explaining the evidence and processes of managing the beaches to provide improved protection from flooding. It is proposed to use students from Lancaster University working alongside the local consultancy firm who provided the community link on the Rossall scheme to undertake this work package. This will form an extension of the Rossall North works programme.

5. Key issues and proposals

- 5.1** In order to build community trust and satisfy the requirements of the funding guidelines it is necessary to provide a robust evidence base for future capital works. The approved studies will provide this evidence base whilst fully involving the coastal communities. Approval to use Jacobs (formally CH2M) was given by the resources Portfolio Holder on 9 March

2017. A quotation through the EA's Water and Environmental Management procurement framework (WEM) for the additional works required to take the scheme to the final design phase has been received from Jacobs. It is proposed to directly appoint Jacobs for these studies, through this framework.

5.2 Quotations have been sought and Marlan Maritime Technologies have been selected to extend the works commissioned through the Rossall North scheme for radar monitoring and analysis and The Rabbit Patch Ltd have been selected to undertake community consultation.

5.3 The studies required to inform the business case will be supported through external funding through FDGiA.

5.4 The capital costs identified for the full scheme in the financial implications section below should be entered in the council's capital programme.

6. Delegated functions

6.1 The matters referred to in this report are considered under the following executive function delegated to the Neighbourhood Services and Community Safety Portfolio Holder (as set out in Part 3 of the council's constitution):

"To consider any matter relating to the Council's responsibilities for coast protection or the provision and maintenance of sea defences."

6.2 The matters referred to in this report are considered under the following executive function delegated to the Resources Portfolio Holder (as set out in Part 3 of the council's constitution):

"To consider departures from Rules relating to financial and contractual matters if appropriate."

Financial and legal implications																																					
Finance	<p>The cost of developing the application to the EA to date has been £10,000.</p> <p>Jacobs have provided their proposed input to future studies as part of this application and we have identified the other inputs required from specialist researchers as detailed below:</p> <table style="margin-left: 20px;"> <tr> <td>Jacobs input</td> <td style="text-align: right;">£244,500</td> </tr> <tr> <td>Marlan input</td> <td style="text-align: right;">£42,500</td> </tr> <tr> <td>Consultation Portal</td> <td style="text-align: right;">£28,000 (over 3 years)</td> </tr> <tr> <td>In-house Resources</td> <td style="text-align: right;">£95,700</td> </tr> <tr> <td>Licenses (MMO)</td> <td style="text-align: right;">£4,300</td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">£415,000</td> </tr> </table> <p>The detailed design and pricing stage would be a separate contract either through a design and build contract as used on the Rossall and Anchorsholme schemes or a Client led design which would be tendered competitively. All study costs will be funded through FDGiA.</p> <p>The Outline Business Case represents the next funding approval gateway which will release funding for the capital works.</p> <p>The estimated cost of the scheme as outlined in the scoping document prepared by Jacobs is shown below:</p> <table style="margin-left: 20px;"> <tr> <td>2018/19</td> <td style="text-align: right;">£341,000</td> <td>Consultants and In-house fees</td> </tr> <tr> <td>2019/20</td> <td style="text-align: right;">£74,000</td> <td>Consultants and In-house fees</td> </tr> </table> <p>The following costs for information reflect the estimated breakdown at the detailed design and construction phase:</p> <table style="margin-left: 20px;"> <tr> <td>2019/20</td> <td style="text-align: right;">£500,000</td> <td>Detailed Design</td> </tr> <tr> <td>2020/21</td> <td style="text-align: right;">£4,300,000</td> <td>Construction</td> </tr> <tr> <td>2021/22</td> <td style="text-align: right;">£4,300,000</td> <td></td> </tr> <tr> <td>2022/23</td> <td style="text-align: right;">£4,300,000</td> <td></td> </tr> <tr> <td>2023/24</td> <td style="text-align: right;">£4,300,000</td> <td></td> </tr> <tr> <td>2024/25</td> <td style="text-align: right;">£4,300,000</td> <td></td> </tr> </table>	Jacobs input	£244,500	Marlan input	£42,500	Consultation Portal	£28,000 (over 3 years)	In-house Resources	£95,700	Licenses (MMO)	£4,300	TOTAL	£415,000	2018/19	£341,000	Consultants and In-house fees	2019/20	£74,000	Consultants and In-house fees	2019/20	£500,000	Detailed Design	2020/21	£4,300,000	Construction	2021/22	£4,300,000		2022/23	£4,300,000		2023/24	£4,300,000		2024/25	£4,300,000	
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Legal	<p>A contract will be entered into with Jacobs under New Engineering Conditions of Contract 3 Professional Service Contract Option E.</p> <p>The WEM framework Agreement has been procured by the EA in accordance with OJEU regulations and therefore the procurement will comply with the Council's Financial and</p>																																				

	Contract Procedure rules and European Procurement Procedure.
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Other risks/implications: checklist

If there are significant implications arising from this report on any issues marked with a ✓ below, the report author will have consulted with the appropriate specialist officers on those implications and addressed them in the body of the report. There are no significant implications arising directly from this report, for those issues marked with a x.

risks/implications	✓ / x
community safety	✓
equality and diversity	x
sustainability	x
health and safety	x

risks/implications	✓ / x
asset management	✓
climate change	✓
data protection	x

report author	telephone no.	email	date
Carl Green	01523 887215	carl.green@wyre.gov.uk	23/08/2018

List of background papers:		
name of document	date	where available for inspection
None		

List of appendices

Appendix 1 – Submission to EA.

dems/ph/re/cr/18/0010cg1

Application for approval of studies and strategies

Risk management authority (RMA)



The Flood and Water Management Act 2010

Please read through this form and write clearly in the spaces provided.

Please send a signed copy of this form to the Area Flood and Coastal Risk Manager for approval.

Their contact details are on our website:
www.environment-agency.gov.uk.

Contents

- Part A Study or strategy details
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- Part C Value of study or strategy
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- Part M The Data Protection Act 1998
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Part A Study or strategy details

A1 Title of study or strategy

Wyre Beach Management Study

A2 Name of your authority

Wyre Borough Council

A3 Start date (DD/MM/YYYY)

01/06/2018

A4 End date (DD/MM/YYYY)

30/06/2019

A5 National project number (Capital Investment Plan reference number)

A6 Environment Agency region, Regional Flood and Coastal Committee and area

North West

A7 Which type of risk management is your study or strategy for?

For example, river flooding, surface-water management

Tidal flooding

Part A Study or strategy details, continued

A8 Role or job title

Project manager

Name

Title (Mr, Mrs, Miss, Other) Mr

First name Carl

Last name Green

Signature

Date (DD/MM/YYYY)

15/05/2018

Project executive

Name

Title (Mr, Mrs, Miss, Other) Mr

First name Mark

Last name Billington

Signature

Date (DD/MM/YYYY)

16/05/2018

Part B Type of funding

B1 Details for the types of funding

Type	Amount (£ thousands)	Percentage (%)
Flood and coastal erosion risk management grant in aid (FCERM GiA)	415	100
Local levy		
Own revenue		
External contribution		
Total contribution	0	0

B2 Confirmation

I confirm that I have attached all necessary supporting documents to this form and that the application meets the conditions set out in the grant memorandum.

Signature

Name of authorised officer

Title (Mr, Mrs, Miss, Other)

First name

Last name

Date (DD/MM/YYYY)

B2 Confirmation, continued

Contact name (for queries)

Title (Mr, Mrs, Miss, Other)

First name

Last name

Contact numbers, including the area code

Phone

Fax

Mobile

Email

Part C Value of study or strategy

Value of study or strategy	Amount (£ thousands)
Total costs of study or strategy	415
Less administrative and legislative costs that are not eligible for a grant	
Study or strategy costs (for approval)	415
Less contributions	0
Less contingency identified in the Outline Business Case	0
Net amount of grant applied for	415

Part D Environmental impact assessment (EIA)

D1 Level of environmental impact assessment (EIA) required

Does not apply

Low

Medium

High

Part E Background

Take from your project mandate or executive summary.

Briefly explain what needs to be studied, including the geographical area and how the study links to agreed plans, strategies and programmes.

This Study will inform the proposed Wyre Beach Management scheme which aims to maintain beach levels along the frontage through a combination of beach control structures and beach management.

The Study will be managed in accordance with Prince2 principles by Wyre BC in collaboration with the Fylde Peninsula Coastal Programme (FPCP) team, which is a combined team with neighbouring authorities Blackpool Council and Fylde Council and the Environment Agency.

Future works are likely to include improvements to beach control structures and defences at Cleveleys Strategy Unit 1 (SU1), Rossall South (SU2) and Fleetwood North (SU4) in the context of beach management of the whole frontage such that the strategically optimised standard of protection of 1 in 200yrs is maintained. It should be noted that implementation of holistic beach management for the Wyre BC coastal frontage will serve to maintain the standard of protection for the whole frontage, not just those within sub-units 1, 2 and 4.

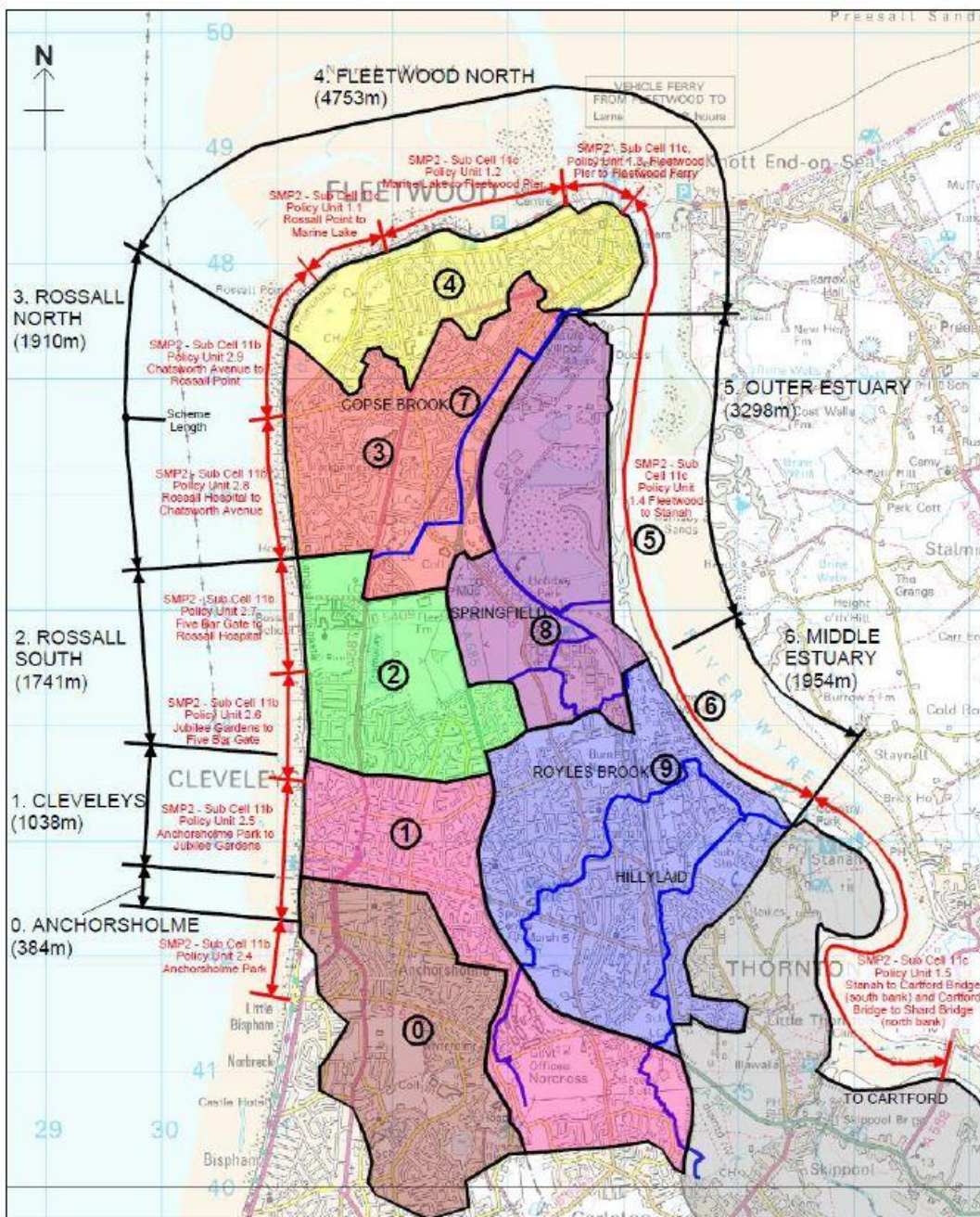


Fig 1. Wyre Strategy Area showing coastal flood cells and strategy frontages.

The approved Wyre Urban Core Strategy, Revision 3, dated February 2013, (the Strategy) identifies that some 11,056 no properties rely on natural beach defences to sustain the level of protection offered. Without the natural beach defences and beach management systems there is a very high likelihood of failure of the concrete defences which protect the properties. Appendix A shows storm conditions along the frontage.

These coast defences comprise of hard defences which are in a fair condition but are showing some signs of wear and tear commensurate with their 1920's construction date. Improvement works including beach management and replacement of failed assets are required in the short/medium term to assist in maintaining healthy beach levels and flood protection. Appendix B details the changing beaches and failing assets.

The Strategy highlights that these coast defences ought to be renewed from 2018. The Strategy recommends that the best value for money option is concrete repairs to the promenade, seawall and revetments with beach management (groynes and recharge).

Part F Objectives

State clearly what the study is trying to achieve.

The Wyre Beach Management scheme aims to maintain beach levels along the frontage through a combination of beach control structures and beach management.

The Study will determine the optimum method of sustaining and improving the existing protection offered by understanding and defining the problem. This will satisfy the following objectives.

- To provide an understanding of the existing ground conditions in order to facilitate design development.
- To identify any environmental constraints and opportunities offered by the future scheme.
- To update existing bathymetric and sediment modelling undertaken on the coastline, utilizing EA open coast flood modelling standards and updated monitoring data.
- To review and update coastal process information including overtopping modelling, storm beach profiles and to determine beach profiles and intervention triggers for Standard of Protection of 0.5% (set in strategy) for 0, 20 and 100 years.
- To determine the shoreline evolution over a period of 30 years and to determine the associated wave and tide conditions.
- To determine a sediment budget along the frontage.

The study will then determine the preferred option through the following objectives::

- Public buy in and understanding through detailed consultation.
- Determining the environmental, economic and technical viability of potential options.

Part G Consulting stakeholders

Briefly outline who you are going to consult and their interests.

Statutory Consultees: In particular Marine Management Organisation (MMO) Historic England (HE) and Natural England (NE): Workshops and walkover site visits will be held with these organisations

- Attend an environmental walkover site visit to identify further environmental constraints/opportunities (NE, HE to attend).
- Attend a 1 day meeting with Natural England/Historic England to present/discuss environmental constraints/opportunities.

Public Consultation: Beach Users, Visitors and Local Community: A significant amount of effort has been put into building community liaison groups and it is intended to enhance this by:

- Establishing a community based online platform for engaging citizens in coastal monitoring utilizing existing community web platforms.
- Hosting community workshops and liaison panels at key stages of the study. .

Part H Options considered

Briefly describe the cost and risk implications of the extent and depth of the study and the courses of action you have considered – including doing nothing – and the reasons for the preferred scale of study.

The study has been developed with CH2M Dr A Parsons and Dr L Oldfield-Trim based on their experience of producing similar schemes, the scoping document is included at Appendix C to this form..

The total cost of the proposed study is constructed of three parts:

- CH2M Consultant Costs: £244,419 incl. £33,810 risk allowance based on WEM rates Oct 17
- Client Costs £95,719 incl.£12,208 risk allowance. See Appendix D
- Other Consultant costs Community based platform and Radar data capture £75,270 incl £12,924 risk allowance. See Appendix E

At 1.8% of anticipated scheme costs the scale of the study is appropriate to enable capital works to an estimated value of £22 million to proceed improving the level of protection to over 11,000 properties.

Part I Study plan

Briefly set out the methods you will use to achieve the objectives of the study (for example, site surveys, photographs, physical or mathematical modelling), and any potential problems or risks.

To provide an understanding of the existing ground conditions in order to facilitate design development.

- *Undertake desk based assessment of existing ground conditions, leading to recommendations for further GI to support outline design development if required.*
- *Undertake desk based review of potentially contaminated sites in the study area using studies undertaken during the SOC in conjunction with additional data from Wyre BC.*
- *Obtain Envirocheck data for input into PEIR*
- *Obtain service plans from stakeholders and services providers*
- *Obtain desk based UXO assessment*

To identify any environmental constraints and opportunities offered by the future scheme.

- Review of baseline environmental information and identify need for additional baseline surveys and information from external organisations where necessary.
- Attend an environmental walkover site visit with project team to identify further environmental constraints/opportunities (NE, HE to attend).
- Attend a 1 day meeting with Natural England/Historic England to present/discuss environmental constraints/opportunities.
- Phase 1 habitat survey
- Cultural Heritage Appraisal

To update existing bathymetric and sediment modelling undertaken on the coastline, utilizing EA open coast flood modelling standards and updated monitoring data.

- Approval of the Modelling scope by the Environment Agency is required prior to work start.
- Nearshore beach profile, tidal boundary and sediment data will be adopted from previous Wyre Beach modelling studies (2012).
- Recommendations for further topographic or GI survey will be made if applicable and provided by the client in-house team.

To review and update coastal process information including overtopping modelling, storm beach profiles and to determine beach profiles and intervention triggers for Standard of Protection of 0.5% (set in strategy) for 0, 20 and 100 years.

- Review of existing coastal process information (from the SOC and North West Regional Monitoring) to inform option development.
- Obtain latest beach profile information and review existing beach profiles considering impact of adjacent schemes
- Undertake COSMOS 2D modelling to determine overtopping rates
- Undertake SHINGLE modelling to determine storm beach profiles for a range of AEPs
- Undertake Shoreline Evolution modelling (LITLINE)
- Undertake Coastal Area modelling (MIKE21)
- Undertake baseline simulation to determine sediment budget

To determine the shoreline evolution over a period of 30 years and to determine the associated wave and tide conditions.

- Develop long list options for beach management

- Prepare short list of viable options for Employer's approval (Do Minimum + 3no. Do Something options).
- Undertake simulations of options to produce a modelling report summarising baseline and option testing in COSMOS2D, SHINGLE, MIKE21 and LITLINE

Public buy in and understanding through detailed consultation.

- Engage with public throughout process through community based platform to educate and inform them of coastal processes based on their observations and the modelling outputs.

Determining the environmental, economic and technical viability of potential options

- Engage MMO on screening/scoping opinion.
- Prepare a Preliminary Environmental Information Report (PIER) summarising all environmental assessment work. Appendices to include WFDa, HRA, Landscape and Visual Amenity appraisal, ILPS and Cultural Heritage Assessment
- Obtain Early Supplier Engagement (ESE) input on construction costs and develop whole life costings
- Prepare economics report
- Assess in detail the short list options for technical, environmental and economic suitability and produce an Appraisal Summary Table.
- Apply FCERM-AG decision rule and identify draft preferred option.
- Undertake sensitivity tests on draft preferred option (inc. test effects of any changes to key parameters/beneficiaries, SoP, PF score etc) for appraisal period.
- Confirm benefit period as distinct from appraisal period and calculate damages/costs for benefit period
- Calculate a resilience PF score calculation of draft preferred option for benefit period.
- Calculate risk allowance using Monte-carlo analysis for preferred option
- Produce a detailed cost breakdown, expenditure profile and implementation programme for draft preferred option.
- Produce an Options Appraisal Report drawing together all options appraisal work inc. details of draft preferred option.

Risks

- A Habitats Regulations Assessment (HRA) was undertaken for the SOC and agreed with Natural England, concluding No Likely Significant Effect and that an Appropriate Assessment was not required for the strategy. The study allows for a scheme level HRA to consider potential for impacts on Morecambe Bay designated sites. The PEIR will be submitted to the MMO for a screening opinion to determine whether the identified preferred option will require statutory Environmental Impact Assessment. In consideration of the above no allowance has been made for the preparation of the EIA.
- The PEIR will be used to determine if planning permission is required. If planning permission is required, a separate screening of the preferred option will need to be undertaken with the relevant authority/ies—management of this task is not currently included and will be subject to additional cost.

Part J Schedule of work

Briefly describe the project milestones.

Description of milestone	Estimated start date (DD/MM/YYYY)	Estimated end date (DD/MM/YYYY)	Budget (£ thousands)
Understand & Define Problem	01/06/2018	01/07/2018	118
Objective Setting	01/07/2018	15/07/2018	1
Establish Baseline Scenario	15/07/2018	31/08/2018	93
Option Selection	01/09/2018	01/10/2018	39
Option Costs & Benefits	01/11/2018	01/12/2018	91
Preferred Option Selection	01/01/2019	01/02/2019	31
Develop Outline Design	01/03/2019	30/06/2019	42

Part K Product description

Briefly set out what your project will deliver and what quality standards you will put in place and how they will be monitored, for example by a client group or independent reviewer.

Product	Quality standards	Quality review method
1 Do Nothing Baseline Report	Fully QA report	Client Group
2 Modelling Report	Fully QA report	EA / Client Group
3 Economics & Option Appraisal Report	Fully QA report	Client Group
4 Design & Environmental Information Report	Statutory consultees approval.	Independent Review ECI, MMO

Part L Spending profile

Set out the breakdown of the study's estimated costs and the profile of planned spending (cash).

Cost of study	Spending profile			
	Year 2018 (£ thousands)	Year 2019 (£ thousands)	Year _____ (£ thousands)	Year _____ (£ thousands)
Baseline report	342			
Develop Outline Design		73		

Part M The Data Protection Act 1998

We, the Environment Agency, will process the information you provide so that we can deal with your application, make sure you keep to the conditions of the licence, permit or registration, and process renewals.

We may also process or release the information to:

- offer you documents or services relating to environmental matters;
- consult the public, public organisations and other organisations (for example, the Health and Safety Executive, local authorities, the emergency services, the Department for Environment, Food and Rural Affairs) on environmental issues;

- carry out research and development work on environmental issues;
- provide information from the public register to anyone who asks;
- prevent anyone from breaking environmental law, investigate cases where environmental law may have been broken, and take any action that is needed;
- assess whether customers are satisfied with our service, and to improve our service; and
- respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows).

We may pass the information on to our agents or representatives to do these things for us.

Part N Contact us

If you need help filling in this form, please contact the person who sent you it or contact us as shown below.

Grant Administration Team
Environment Agency
Manley House
Kestrel Way
Exeter
EX2 7LQ

Telephone: 02030 252221

Email: laidbfinance@environment-agency.gov.uk

Website: <https://www.gov.uk/government/collections/flood-and-coastal-defence-funding-for-risk-management-authorities>

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.



For Environment Agency use only

Note to AFCRM: Please send this FCERM7 to the grant administration team for approval.

Name of Area Flood and Coastal Risk Manager

Title (Mr, Mrs, Miss, Other) _____

First name _____

Last name _____

Job title

Signature

Date (DD/MM/YYYY)

Grant administration team

Title (Mr, Mrs, Miss, Other) _____

First name _____

Last name _____

Job title

Signature

Date (DD/MM/YYYY)

Risk management authority

Strategy or study project report

Project title

Name of authority

Name of chair of National Project Assurance Service or the Large Project Review Group

Title (Mr, Mrs, Miss, Other) _____

First name _____

Last name _____

Job title

Signature

Date (DD/MM/YYYY)

Form FCERM 7: Application for approval of studies and strategies

National project number (Capital Investment Plan reference number)

Authority project reference number