Department for Environment Food & Rural Affairs

Environment Agency

Cyfoeth Naturiol Cymru Natural Resources Wales

Llywodraeth Cymru Welsh Government

Example approaches to transferring or decommissioning Flood and Coastal Erosion Risk Management assets

FCERM Research & Development Programme

Research report

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We are the Environment Agency. We protect and improve the environment.

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Research at the Environment Agency

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This report is the result of research commissioned and funded by the Joint Flood and Coastal Erosion Risk Management Research and Development Programme. Our vision is that the nation is recognised as a world leader in researching and managing flooding and coastal change.

The Joint Programme is overseen by Defra, the Environment Agency, Natural Resources Wales and Welsh Government on behalf of all risk management authorities in England and Wales.

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If you have any comments or questions about this report or the Environment Agency's other Flood and Coastal Erosion Risk Management work, please contact fcerm.evidence@environment-agency.gov.uk.

Dr Robert Bradburne — **Chief Scientist**

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We would like to thank those who attended the workshops, provided case studies, information and data, and to those who helped to test and develop the processes and approaches described here.

The project team comprised:

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Sadly, one of the primary contributors to this piece of work, Richard (Dick) Thomas, passed away in December 2020. Dick was a widely known, respected and extremely popular member of the FCERM community, having worked in this field continuously since 1969. In 1981, he joined Royal HaskoningDHV (then Posford Pavry) leading the development of its flood and coastal practice, moving on to Faber Maunsell (now AECOM) in 2005. He then joined Halcrow (now Jacobs) up to retirement in 2012, but did not stop there, continuing to work as an independent consultant right up to and including his involvement with this, his last, project. In ‘retirement’ he remained actively involved in advising CIRIA on coastal matters, as well as various other professional committees, and became the coastal member of the Anglian (North) Regional Flood and Coastal Committee. Dick loved his profession, was an incredibly experienced and knowledgeable engineer, an inspiration to many, and will be sorely missed by all those who had the privilege to work with him.

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Executive summary

This project collates and presents practical information on the transfer and decommissioning of flood and coastal erosion risk management (FCERM) assets. It starts from the point where the responsible risk management authority (RMA), for example, the Environment Agency, Natural Resources Wales, local authority, internal drainage board, water company, Network Rail, National Trust or Highways England, maritime district authorities and unitary authorities for the coast has decided to 'do something different' with one or more of its FCERM assets. These might be, for example, a seawall, an embankment or a water level control structure.

Good asset ownership requires continuous review of the organisation's assets. In some cases, there may no longer be sufficient economic, flood/coastal erosion risk, environmental or other reasons to continue ownership or operation of a specific asset. In such a case, there may be other organisations who would value the benefits of the asset more than the current owner and/or operator and who would welcome the transfer (via sale or handover) to them. In other circumstances, there may be no willing new owner and/or operator and the asset may need to be decommissioned (ceasing maintenance previously carried out under permissive powers, removed or demolished).

This report provides possible approaches to transferring or decommissioning assets. It sets out the overall process, as well as the detail, of a 3-stage framework of initial assessment, detailed assessment and, lastly, implementation. This is discussed under 5 topic headings – legal and regulatory, asset information, environment and sustainability, finance and funding and stakeholder engagement. The report is divided into 3 parts:

A. part A introduces the overall approach, based on the 3-stage framework, briefly describing its principles and how to progress through asset decommissioning or transfer
B. part B contains details on each of the 5 core topics for referral. This includes identifying information, selecting an engagement and communication approach, and understanding the legal obligations and responsibilities of asset owners/operators before and after the transfer or decommissioning of assets occurs
C. part C provides 5 case studies where asset transfer or decommissioning has previously been carried out, giving insights that will help those embarking on this process

A structured process is presented to help the reader work through the 3 likely stages of assessment and decision points that will be required. This includes:

- emphasising the importance of well-planned engagement throughout the process, and how to go about this,
- demonstrating the importance of thorough planning,
- highlighting how the decision to transfer or decommission should be regularly reviewed in light of new information.

1 Introduction

1.1 Purpose

Flood and coastal erosion risk management (FCERM) in England and Wales is the responsibility of risk management authorities (RMAs). These include:

- the Environment Agency
- Natural Resources Wales (NRW)
- lead local flood authorities (LLFAs)
- district councils for areas for which there is no unitary authority
- internal drainage boards (IDBs)
- water companies
- highway authorities

This document is the product of a 'Joint Flood and Coastal Erosion Risk Management Research and Development Programme' project that investigated the process around the transfer or decommissioning of FCERM assets. The intent is to support appropriate decision-making and implementation.

To carry out their responsibilities in a targeted and effective way, RMAs in England and Wales will, from time to time, need to consider whether they are the right owner and/or operator of certain FCERM assets. Situations include where the maintenance or replacement of certain assets by the current asset operator may no longer be economically justifiable from a FCERM perspective. In these situations, consideration may be given to decommissioning the asset (full or partial removal or abandonment) or transferring it (via sale or handover) to others.

This report starts from the point where the responsible RMA has decided to decommission or transfer an asset. The decommissioning or transfer of FCERM assets can present several legal, logistical and financial challenges for current and future operators, including responsibility for maintenance and/or for flooding or coastal erosion. In this context, there is a need to understand these challenges and provide guidance to those different parties.

Based on expert advice and practical experience, this document provides information on:

- assessing the implications of discontinuing maintenance activities
- common matters for asset transferral and decommissioning, and approaches to address those
- engaging and involving local stakeholders
- the obligations and responsibilities of asset owners/operators before, during and after transfer or decommissioning of assets occurs

This is supplemented with case studies providing examples of 'good practice'.

Important to note: Every reasonable effort has been made to make the information contained in this document accurate, but the Environment Agency and other contributors do not assume responsibility for, or provide any guarantees or warranties in respect of the document's accuracy or completeness. The Environment Agency does not provide any guarantees, conditions or warranties that the findings of this report are complete and accurate. The information and commentary in this document does not, and is not intended to, define binding standards or constitute a promise that RMAs will act in a particular way in individual cases. The Environment Agency is not liable for any loss or damage resulting from use of or reliance on this report. Please refer to the full terms and conditions in respect of using GOV.UK content.

This document is not intended to amount to legal advice to any person, nor is it a substitute for consulting the relevant legal provisions. Anyone in doubt about how they may be affected by any of the matters referred to in the document should seek legal advice.

This document does not define policy, nor should it be considered as a user guide. It provides information intended to be useful for those asset owners and operators who are faced with a situation where they may need to 'do something different' with their asset(s) and need some direction on how to proceed.

This report is written primarily for FCERM asset managers and operators. However, others (including other landowners or stakeholders who may be affected by a decision to transfer or decommission an asset) may find it useful.

This document signposts potentially relevant considerations for practitioners when managing portfolios of flood risk assets with transitions. It is not intended to be, and should not be read as, prescriptive, exhaustive, or a statement of best practice.

The research findings presented in this guide were commissioned by the Environment Agency for this project. This document should be read alongside other information on this topic should be read alongside other sources of information rather than considered in isolation.

The outputs from this project are being used by the Environment Agency to review and improve our internal management processes. We apply a risk-based approach to all our activities, ensuring public money is targeted in a way to achieve the most benefit. This means that we may conclude that some of the techniques set out in this document are not appropriate for the Environment Agency to use.

1.2 Report structure

Part A – Approach

Part A comprises Chapters 2 and 3 and sets out the principles and means to navigate through the asset decommissioning or transfer process.

Chapter 2 – Options for change – considers the reasons why an asset operator may determine a need to ‘do something different’ from their current management approach and the options for asset transfer and asset decommissioning.

Chapter 3 – Making the change – outlines a 3-stage process for asset transfer or decommissioning, moving from initial assessment through to implementation, setting out the main steps and considerations around 5 core topics. Each of the 3 stages is presented as a flow chart showing the overall process and more detailed steps for the specific topics. Hyperlinks are contained in the flowchart to take the user to the specific data or detailed narrative in part B.

Part B – Topic-specific information

Contains details on each of the core topics for referral (where and when applicable).

Chapter 4 – Legal and regulatory framework – sets out legal aspects to consider when transferring or decommissioning an asset and includes (or references) the consenting processes and some important legislation that is typically relevant when transferring or decommissioning an asset.

Chapter 5 – Asset information – identifies requirements for defining the asset(s), including the main information that the current operator will need to provide, understanding asset function, including flood and coastal erosion risks, and health and safety considerations.

Chapter 6 – Environment and sustainability factors – outlines requirements to help operators identify some of the main environment and sustainability issues (and opportunities) when transferring or decommissioning assets.

Chapter 7 – Finance and funding – includes information on organisations/funding sources that might be considered to financially support asset transfer or decommissioning.

Chapter 8 – Stakeholder engagement – describes how to plan and implement engagement from the outset when considering future management approach options, including asset transfer and decommissioning.

Part C – Case studies

Provides a range of examples in the form of case studies.

Chapter 9 – Development of case studies – provides case studies that demonstrate recent, actual experience of transfer or decommissioning of FCERM assets, to illustrate how different challenges have arisen in different locations regarding different asset types, and the lessons learnt.

Glossary

Glossary of terms used in this report

Appendix: additional information

The appendix references/signposts to content that is readily available elsewhere (and so not included in this report).

Bold text

Bold text is used in this document to amplify, clarify or exemplify particular points; these points start with bold text such as ‘Important to note,’ ‘Examples’ or Further reading.

Part A - Approach

2 Options for change

2.1 Doing something different

Different approaches to asset transfer or decommissioning may be considered, as follows:

2.1.1 Asset transfer

Handover: Handover of the asset maintenance, from the current operator to a new operator and/or landowner (including when the current operator decides to cease maintenance it has previously carried out under permissive powers).

Sale: Sale of the asset and/or sale of the land for a fee, from the current operator to a new operator (a willing buyer).

2.1.2 Asset decommissioning

Demolition: Full or partial demolition to remove as much of the asset(s) as possible and return the area in a planned/controlled way to a desired future state, which may or may not be a wholly natural state. Asset decommissioning should require the operating authority to understand environmental opportunities as well as risks. On the coast, this is often carried out as part of a managed realignment.

Abandonment**:** Ceasing maintenance of the asset(s); allowing the asset(s) to degrade over time and eventually fail (abandonment). Depending on the function, condition and location of the asset, non-intervention may be appropriate, such as in an area where an asset provides protection of low-value agricultural land and where no property or critical infrastructure is at risk if the asset was no longer maintained (CIRIA, 2010).

When deciding on which option might be most appropriate for ‘doing something different’ for a FCERM asset or system of assets, there are several factors to consider, for example:

- strategic fit – do the outcomes which result from the option fit with the local and national strategic direction?
- economic, social and environmental fit – is the option likely to provide economic, social and environmental value in terms of costs, benefits and risks?
- affordability – how will an option be financed and/or is it affordable within existing budgets?
- technical achievability:
    - how likely is it that an option can be carried out given resources available?
    - are there any dependencies with other assets?

- collateral effects and unintended consequences:
    - what are the uncertainties with an option?
    - is the option adaptable to changes?
    - what is the level of risk associated with the option?

2.2 Context for considering options

There are several reasons why an asset operator may have reached a decision to 'do something different' about the maintenance of an FCERM asset or system of assets. These may inform the decision on the options for any proposed change in management. They include value for money and affordability as follows:

Value for money

An asset may be deemed 'uneconomic' if the benefits of maintaining it are outweighed by the costs. This may be due, for example, to it no longer being possible under current Treasury rules to obtain public funding to maintain the asset from an FCERM perspective. This may arise over time or following an extreme event when a sudden capital investment is required to repair or replace damaged assets. It may also be that another operator can maintain the asset more efficiently and therefore more cost effectively.

Affordability

When faced with a limited maintenance budget, RMAs prioritise assets that provide the greatest flood risk benefits. Therefore, assets with fewer benefits may not attract funding, even if they provide value for money in economic terms. Such assets are sometimes deemed 'unaffordable' by operators or maintainers.

Important to note: messaging around an asset being 'uneconomic' or 'affordable' to the current operator needs to be carefully considered, as it can make it harder for a new operator to consider taking on an asset via transfer if it is defined in these terms. It is therefore important to focus on the benefits an asset may have to another operator (see section 7.3 Economic benefits of asset transfer or decommissioning).

1. Health and safety. This may happen, for example, if an asset has deteriorated over time or become damaged as a result of an extreme event, and cannot be replaced, but leaving it in situ presents health and safety risks to the public. Decommissioning by removing it (or making it safe), including providing safe access, may be required.
2. Environmental. In order to maintain, enhance and restore areas, it may be necessary to decommission assets as opposed to transferring them. This is especially relevant in, and adjacent to, protected areas, for example, Site of Special Scientific Interest (SSSIs) and Special Area of Conservation (SACs). Examples include removing weirs from rivers and managed realignments at the coast.
3. Legal. Linked to (2) and (3) above, there may be legal requirements to carry out asset decommissioning or transfer to manage liabilities. It needs to be noted

that RMAs generally carry out maintenance using permissive powers rather than as a result of any legal obligation to do so. Therefore, they may not be liable for continuing maintenance.

4. Ownership and liability. Linked to (4) above. Often an asset belongs to the owner of the land on which it sits, so that the landowner is liable for that asset, for example, in terms of maintaining it and ensuring it does not cause injury to others. However, consideration should be given to whether ownership and/or liability rest elsewhere, for example, because of agreements entered into historically. As in point 4, it needs to be noted that RMAs generally carry out maintenance using permissive powers, as stated in section 4.3.
5. Sustainability. Often driven by strategic plans/policies, some assets may need to be transferred or decommissioned to meet FCERM objectives in a wider system context, to provide long-term sustainable management of flood and coastal erosion risks. This could include a need to decommission assets to reduce impacts on downdrift shorelines.

There are a range of other strategic reasons (for example, strategic plans or policies at the national, regional or local level) which might support considering asset transfer or decommissioning. Some of the main strategic documents an operator may wish to make reference to in assessing the context for asset transfer or decommissioning are shown in the Appendix.

Understanding the wider context in terms of compliance with legislation, risk, legal and financial arrangements, and engaging stakeholders are challenging aspects in the overall process of transferring or decommissioning. The complexity of them can be exacerbated by crossing functional and disciplinary boundaries and due to the need to coordinate and manage the various issues in parallel.

When considering ‘doing something different’ to the current management approach of a FCERM asset, the options considered need to align with the overall strategic plan for an FCERM system, in that:

- the implications of a change in management approach are fully explored with affected stakeholders
- a broad consensus on the preferred way forward is reached
- the risks to people, property, infrastructure and the environment can be kept to a minimum
- measures to adapt to the new situation are developed and implemented in a rational and timely manner
- the potential opportunities are maximised by timely and well-planned adaptation

It is therefore important to clearly identify the broader context and why a change is necessary, also demonstrating that a robust process (including engagement) has been followed in reaching this point.

The bibliography contains a list of references that can be used to help the proactive planning and optioneering of sustainable FCERM asset management, including considering asset transfer and decommissioning.

Important to note: please note the following points:

- in some circumstances, a combination of different approaches for different assets and/or asset elements in a single asset system might be appropriate (for example, demolish + abandon, transfer + demolish, transfer + abandon)
- non-transfer or non-decommissioning options should also be considered - although not the focus of this report, these other options might involve a reduced level of maintenance, accepting a reduced standard of service or delaying work rather than totally ceasing maintenance (for example, when the maintenance priority may be low compared with other systems, but a minimum standard of service is still required)
- as part of the process of assessing asset transfer or decommissioning, these options should be reviewed if they have not been considered before - for public sector organisations, it is likely this will be required in order to demonstrate that progressing with asset transfer or decommissioning is viable and appropriate

2.3 Review

Throughout the process of working towards either decommissioning or transferring an asset, the decision to ’do something different’ should be kept under review. As shown in Figure 2.1, as the process proceeds further information is often discovered and analysis carried out by the parties involved, this confirms the soundness of the initial decision to change. In other cases, however, that process may indicate that the initial decision needs to be re-examined. In these situations, other options should be considered, including, potentially reversing the decision to transfer or decommission.

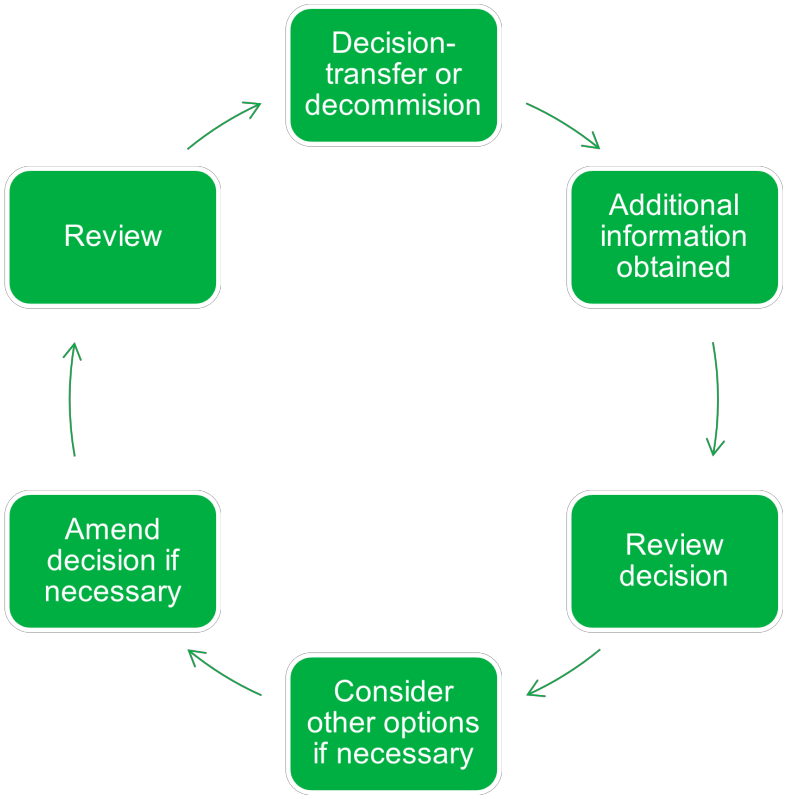


Figure 2.1: Process of decision review

Figure 2.1 shows the cycle of the decision review process in six steps. In a clockwise order, these are: decision transfer or decommission, additional information obtained, review decision, consider other options if necessary, amend decision if necessary and review.

Fundamentally, keeping the decision under review should mean operators consider whether the objectives, data and criteria used in reaching the initial decision remain sound, as there are several reasons why the decision may need to be re-considered and, in some cases, reversed. For example, if:

- new evidence emerges which suggests a new approach should be considered. This could be either moving away from considering asset transfer or decommissioning or stepping back from progressing asset transfer and changing to an asset decommissioning approach (or vice versa)
- there are health and safety risks which cannot be mitigated
- the anticipated risks are too high or there are too many uncertainties (for example, flood and coastal erosion risks are higher than anticipated)
- there is a change of circumstances (for example, new regulatory frameworks or new policies in place, new development area)
- the costs to change the management approach are higher than anticipated
- the potential buyer pulls out

Important to note: what if asset transfer and decommissioning options are unviable? Sometimes alternative regimes not involving asset transfer or decommissioning should be considered, discussed and planned with the community and other relevant stakeholders who have specific responsibilities (for example, relocation of existing properties or limiting the approval of new properties). To note: these regimes are not dealt with in this report.

There may also be situations where asset transfer is being progressed in significant detail, working with a potential new operator, but during the process it becomes evident that the transfer will not be able to be progressed to completion. At this point, it would be necessary to step back and reconsider all options again, including possibly changing approach.

Case study 4 – Black Sluice pumping station, Boston, Lincolnshire provides a pertinent example, where the initial conclusion was transferral, but further work showed decommissioning was more suitable.

3 Making the change

3.1 Overview

3.1.1 Three-stage process

The flow chart depicted in Figure 3.1 below outlines a suggested 3-stage process to follow when a decision has been made to 'do something different' with the management approach of an FCERM asset. A brief overview of the 3 stages is given here, with further information on each provided later in this chapter.

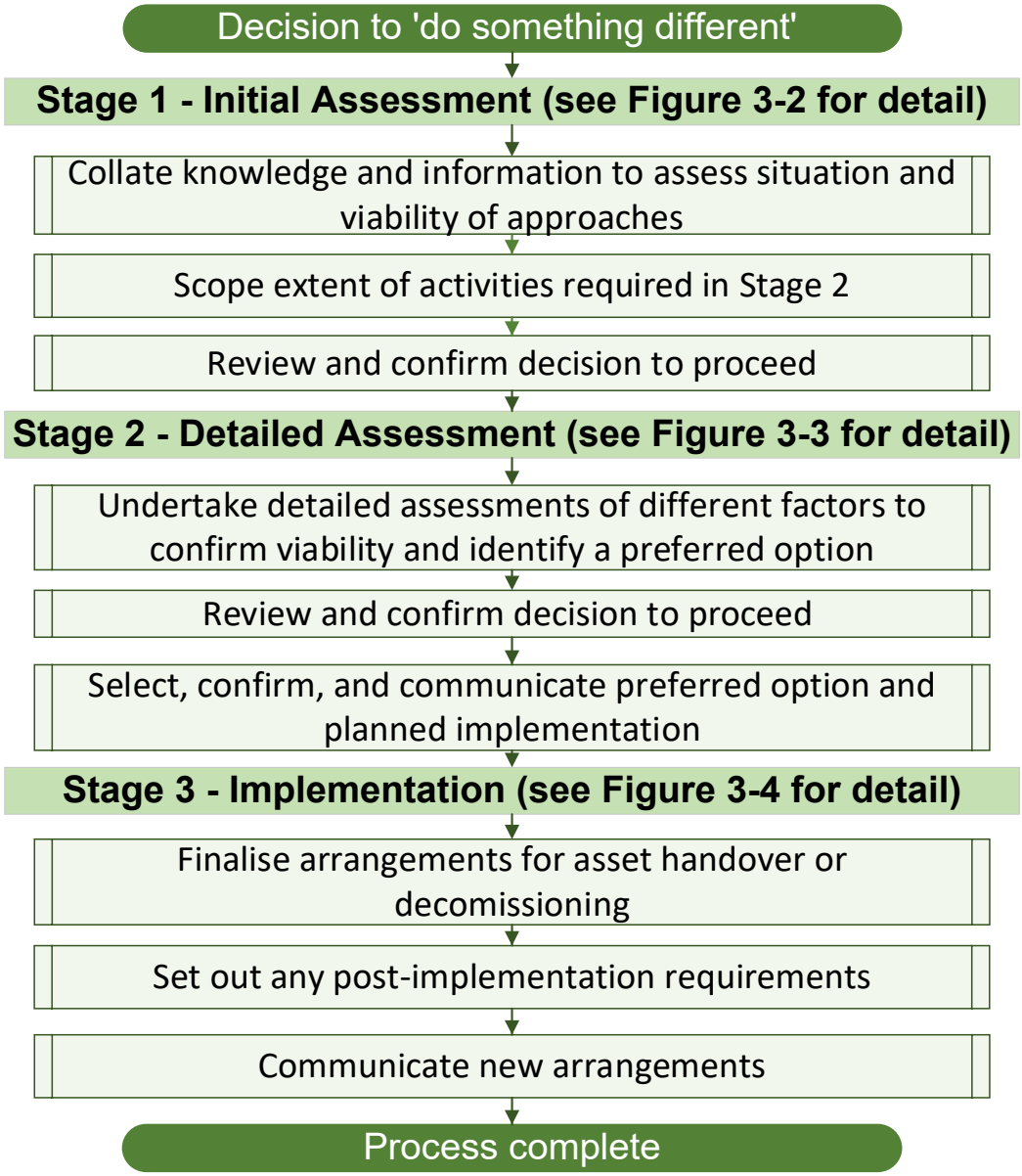


Figure 3.1: An overview of the 3-step process for considering asset transfer or decommissioning options

Figure 3.1 describes the process for considering asset transfer or decommissioning options. Once the decision ‘to do something different’ has been made there is a 3-stage process. Stage 1 - initial assessment, Stage 2 detailed assessment, and Stage 3 – implementation.

Stage 1 - Initial assessment begins from the point a decision is made to consider ‘doing something different’ with respect to an asset or set of assets. The purpose of this initial stage is to obtain more information to help better inform that decision and understand the viability of it. With this knowledge, the decision to transfer or decommission the asset(s) should be reviewed. When confirmed, a decision can be made to move to Stage 2.

Stage 2 - Detailed assessment only takes place where a decision to proceed is the outcome of Stage 1. The purpose of this second stage is to identify the preferred option to be implemented and the steps that will be required to do so. This is achieved through more detailed assessment of various factors as relevant to that asset and circumstance. Stage 2 concludes only when a way forward has been determined, with any relevant consents and approvals obtained.

Stage 3 - Implementation is the final stage in making the ‘do something different’ change in management approach. This will involve the sale, handover, demolition or abandonment of the asset in accordance with the preferred option confirmed at the end of Stage 2. It will also set out any post-implementation requirements, for example, monitoring future activities, and communicate the new arrangements. At the end of Stage 3, the process of asset transfer or decommissioning will be complete.

Important to note: in carrying out each of these stages, the user is strongly advised to also refer to the 5 case studies provided in Part C of this document for additional guidance. Those provide good examples of how specific matters described in this section have been addressed for a range of different asset types and circumstances.

3.1.2 Core topics

Throughout each of the 3 stages there are a range of interrelated factors that will usually need to be considered and understood. These include:

- defining clearly what asset(s) are being considered, understanding the FCERM, health and safety, environmental, sustainability, economic and other factors, risks and opportunities/benefits presented by each different transfer and decommissioning option
- understanding and communicating the legal and regulatory framework, powers and responsibilities relating to the asset(s) under which the decision to ‘do something different’ has been made, and under which future management approaches would occur
- engaging with stakeholders both within and outside the current operator’s organisation (including landowners/occupiers) who will be affected by the decision to ‘do something different’, to involve them as appropriate in discussions about how

asset transfer or decommissioning could occur and in identifying potential funding sources

As these factors are interrelated, they should be considered simultaneously. It is also important to note that some of the factors can be distinctly different for asset transfer versus asset decommissioning options.

Further details are given in Part B of this document, which is structured as follows:

- legal and regulatory framework (Chapter 4)
- asset information (Chapter 5)
- environment and sustainability factors (Chapter 6)
- finance and funding (Chapter 7)
- stakeholder engagement (Chapter 8)

There are also some other useful resources available to help asset operators when dealing with asset transfer and decommissioning, listed in the Appendix.

The remainder of this chapter provides more detail on each of the stages, summarising the main points to be considered in respect of each of the above topics.

3.1.3 General considerations

Important to note: a proportionate approach. When reading this report, the operator should recognise that a different level of assessment might be required depending on the scale, complexity and potential impacts of the project. For example, a project involving one asset, few stakeholders and not affecting local communities may require only a 2-stage process (Stage 1 - Initial assessment and Stage 3 - Implementation).

In following this process, asset operators should consider the following general points.

Engagement should be planned and implemented from the start of the 3-stage process of considering options for the ‘doing something different’ change in management approach. This will provide an open and transparent process which builds trust with local communities, landowners, land occupiers (for example, tenants) and stakeholders, and will develop partnership working for the future.

Engagement needs to be supported by using clearly defined terminology that is understandable by all parties/stakeholders, both within and outside the operator’s organisation. This includes clear communication about what is meant by asset transfer and asset decommissioning.

Important to note: in planning engagement:

- identify and build on any previous engagement carried out to reach the decision to ‘do something different’
- recognise and plan for the fact that more complex situations can take many years to work through to final completion and that, in these cases, there is a real challenge

in keeping effective engagement going given that stakeholders change over time (for example, councils merge, councillors change, residents move in/out of the area) - the engagement needed to overcome this challenge needs to recognise the resource commitment it requires
- set out clear processes for recording all engagement activities, including how comments from stakeholders have been handled and informed the decision-making process - this will prove beneficial if there are challenges raised

Recognise that different asset types/systems can be transferred or decommissioned in different ways. Each of those ways can require different assessments or data and may well involve different stakeholders.

Important to note: general considerations for a new asset management approach:

- relevance of legal, health and safety, social, environmental and economic issues and potential mitigations
- importance of being sustainable, adaptable and flexible and, when possible, working with natural processes, considering the wider system implications
- can wider benefits, other than those associated with managing the risk of flooding or coastal erosion, be achieved?
- define responsibilities and management expectations post-asset transfer or decommissioning

Due to the potential range in complexities that may be involved, it is crucial to be realistic about the timescale to complete the process. While being realistic with timescales, it is also important to keep the process moving along, so setting decision point dates is useful to keep all those involved focused.

Important to note: when setting timescales, consider:

- the number of stakeholders to engage with and when/how many times in the process
- legal aspects, including agreeing transfer agreements and obtaining consents take time to reach conclusion, so start early on in the process
- exploring and securing funding sources can also take a long time. Investigate potential funding sources and start discussions with funding bodies as soon as possible within the process

The transfer or decommissioning of assets can place a heavy demand on resources and it is recommended that the likely resource requirements (staff time and costs) are estimated at the beginning of each stage along with the source of funds to cover that input. A business case may be required to obtain funding from funding source(s) in an appropriate format. This may require multiple business cases if seeking funds from several sources.

In some cases, however, it may be a simple situation of a transfer to a riparian (riverside) owner, meaning costs will be relatively low. This is illustrated in Case study 3 – Essex.

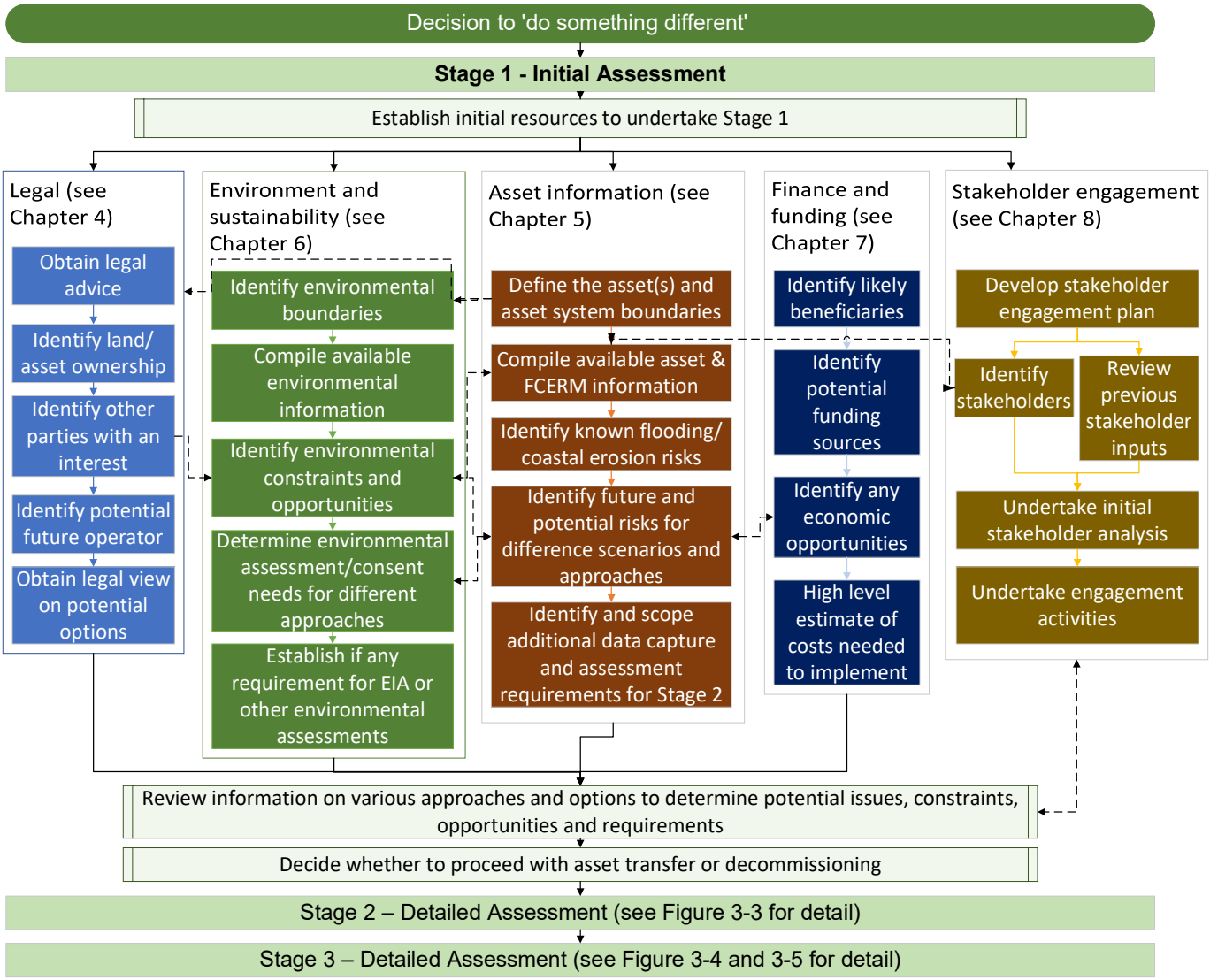
Important to note: resource planning should include

- at Stage 1, budget will be needed for gathering any new data necessary to describe and understand the asset's function, stakeholder engagement, confirming the landowner, and determining the asset operator/landownership relationship and any legal agreements or rights of way in existence
- before proceeding to Stage 2, it is advisable to determine and refine the resources (time, budget and funding) needed to progress through Stage 2 (and Stage 3 as may be appropriate)
- once sufficient information has been obtained, estimates of resources needed to carry out detailed assessments in Stage 2 and implement in Stage 3 can, and should, be refined

During the process of considering asset transfer or decommissioning up until a final decision is made at the end of Stage 2, reviewing the original decision to 'do something different' is always an option if it becomes evident that transfer or decommissioning cannot be achieved.

3.2 Stage 1- initial assessment

The stages in the initial assessment are depicted in Figure 3.2 and are taken once the decision to do something different has been made.



Note: only primary links and inputs between tasks are shown. There should be continuous liaison between simultaneous tasks throughout the process.

Figure 3.2: Flowchart depiction of actions required for Stage 1 – initial assessment (note: only primary links and inputs between tasks are shown – there should be continuous liaison between simultaneous tasks throughout the process)

The flowchart in Figure 3.2 follows the 'decision to do something different' by establishing resources for Stage 1. For that, there are 5 categories to be considered – these are:

Legal and regulatory (more information in Chapter 4) which includes:

- obtain legal advice
- identify asset/land ownership
- identify other parties with an interest
- identify potential future operator
- obtain legal view on potential opportunities

Environment and sustainability (more information in Chapter 6) which includes:

- identify environmental boundaries
- compile available environmental information
- identify environmental constraints and opportunities
- determine environmental assessment/consent needs for different approaches
- establish if any requirements for environmental impact assessment (EIA) or other environmental assessments

Asset information (more information in Chapter 5) which includes:

- define the asset and asset system boundaries
- compile available asset and FCERM information
- identify future potential risks and mitigations for different scenarios and approaches
- identify and scope additional data capture and assessment requirements for Stage 2

Finance and funding (more information in Chapter 7) which includes:

- identify likely beneficiaries
- identify potential funding sources
- identify economic opportunities that may arise
- high level estimate of costs needed to implement

Stakeholder engagement (more information in Chapter 8) which includes:

- develop stakeholder engagement plan
- identify stakeholders
- review previous stakeholder inputs
- carry out initial stakeholder analysis
- carry out engagement activities

The outputs from each of the 5 categories should be used to review information on various approaches and options to determine potential issues, constraints, opportunities and requirements. There should be continuous liaison between simultaneous tasks throughout the process. This will determine whether to proceed with considering asset transfer or decommissioning. If the answer is yes, then move onto Stage 2 – assessment.

3.2.1 Overview

The objective of Stage 1 - initial assessment is to gather existing knowledge, consider options, and better understand the viability of a proposed asset transfer or decommissioning.

Three of the most important steps early on in Stage 1 are to:

- clearly define the asset and the asset operator/landownership
- obtain legal advice
- plan engagement

An initial high-level assessment of asset transfer or decommissioning should be carried out to identify the relative merits of different options. This includes:

- the potential benefits and opportunities of ‘doing something different’. This may be carrying out asset maintenance to a lower standard, or by using the asset in a different way to achieve different objectives
- the potential challenges and constraints, including legal, environmental, sustainability and FCERM factors

Significant to this in an asset transfer situation will be to consider and seek to identify who that future operator might be (see section 4.2.1 Who to transfer an asset to?).

Based on the various information obtained during Stage 1, a decision can be made on whether to proceed with the proposed intent to ‘do something different’. There is no definitive way for how a decision can be reached, as each situation will be different, but it will usually be a collective decision reached following the processes set out here. The following sub-sections describe the main steps to be undertaken during Stage 1 to inform this.

3.2.2 Legal and regulatory

Important to note: the legal and regulatory stages are indicative and, in general, apply to all asset types. However, it may be found that additional stages specific to a particular asset are required.

3.2.2.1 Legal advice

Obtain legal advice at the outset. This will vary from project to project, so an early briefing with legal advisers should be carried out to ensure that they are fully aware of the proposed works and can identify any important issues at an early stage.

A proportionate approach should be considered to ensure important items are captured early, while detailed information and legal inputs can follow in Stage 2. At Stage 1, items might simply include:

- identifying authorities who have an interest in the site, including the current operator

- understanding any specific legislative framework under which they operate and which could affect the final decision whether to transfer or decommission the asset(s)

Identifying a potential appropriate party to transfer the asset to will also provide further clarity as to the necessary legal inputs in future stages. Potential parties could include a competent operator, the landowner, a third party or splitting operational responsibility and ownership.

Important to note: for asset transfer, other guidance or statutory processes may also need to be followed, such as that relating to land transfer/sale, selling assets as a public body, selling land acquired by compulsory purchase or moving a public right of way. Another initial task in Stage 1 will therefore be to identify all such guidance or statutory processes relevant to the situation, and to keep this under review as different options for future asset management are considered.

3.2.2.2 Confirm legal setting

Identify at an early stage the asset/landownership situation, including land title information and any public rights of way over the land asset. In doing so, the following should be identified:

- any relevant legal agreements and/or historic undertakings (for example, between asset operator and landowner/tenant occupier), including any access arrangements for asset management - understand the current status and any provision that may need to be addressed with future users/owners and for amendments to suit
- any regulatory consents that the current operator requires to carry out asset management, and those that a new operator may need to obtain for future asset maintenance or decommissioning - this process may require engagement with numerous statutory regulators – and typical requirements are shown in section 4.4.

Where the asset(s) in question is of unknown or disputed ownership, best endeavours need to be taken to overcome this issue at an early stage in the process.

3.2.2.3 Obtain early view on potential options

Although options will be considered in more detail in Stage 2, it is valuable to obtain early legal advice on any potential options and the steps that may be required to progress each to comply with relevant laws and regulations.

3.2.3 Asset information

3.2.3.1 Compile existing information

It is essential to clearly define the asset(s)/asset system being considered for transfer or decommissioning. The specific location and asset type can dictate the type of information and data that will be required to transfer or decommission it, and to provide or hand over to others as part of the process.

Asset system boundaries should be identified. Once the boundaries are determined the relevant landowners, stakeholders and authorities can be identified.

In addition, it will be necessary to identify and collate other information relevant to the asset being considered, such as flood risk mapping/modelling and coastal erosion risk mapping. Data on physical processes including coastal (for example, waves and tidal currents) and fluvial (for example, river discharges, currents and sedimentation), as well as management practices, may also be important.

Sources of information could include local area offices, coastal erosion and flood risk assessments, and modelling reports.

3.2.3.2 Information gathering

When compiling available information, it is important to engage with a range of personnel, including operating authorities, operational personnel and government to collect all available information about the asset(s) being considered (for example, maintenance regime, as-built drawings).

Walkover inspections with leading stakeholders may be necessary to capture local and practical knowledge of asset history and to discuss challenges and options. Maps and asset system boundaries should be acquired to identify all assets and elements within each asset. Other features and assets which rely on the assets to be transferred or decommissioned should also be identified, such as critical infrastructure running close to or beneath the asset.

An initial checklist of matters the current operator should consider, and information they should gather can be found in section 5.2 Information to be provided. Information on the asset or assets being transferred or decommissioned may include:

- details/drawings of assets being considered
- operational procedures and standard of service provided
- maintenance approach and history, including repairs/modifications from design and replacement schedule
- access arrangements
- asset/land ownership (including land title information and any legal agreements in place between asset operator and land owner, if any)
- Public Safety Risk Assessments (or similar)

3.2.3.3 Initial assessment

Using available information will help to identify the known flooding/coastal erosion risk and consequences. This may include records of previous floods and historical erosion, its causes and consequences, and trends in their occurrence. The effects on the functioning of other assets should be considered in order to understand how the asset in question performs as part of the wider system.

Any risks and possible mitigations with respect to possible options should also be identified. This should look at the current and future risk of flooding/coastal erosion should the asset(s) be maintained to lower standards under asset transfer scenarios or fail/be removed under different asset decommissioning scenarios, considering:

- communities and/or other assets at risk
- the number of properties in the flood/erosion zones
- historical floods/erosion events in the area

To further explore and evaluate asset transfer or decommissioning options, other possible variations in approach and methods might also be identified and considered (for example, relocation of local properties and people).

An outcome of this should be to identify and scope any additional data capture and assessments that will be required in Stage 2.

3.2.4 Environment and sustainability

3.2.4.1 Compile information

Information needs to be compiled so that the asset and its setting can be investigated to identify any environmental constraints and opportunities. This might include designations, seasonal constraints on surveys or works, historical/cultural and social value of the site.

Important to note: the permit or assessments necessary may include:

- environmental impact assessment
- Water Framework Directive
- waste
- flood risk
- water abstraction/impoundment
- archaeology/historic environment
- designated structures and features
- protected wildlife sites and species (including invasive non-native species)
- other site-specific legislation or requirements

3.2.4.2 Identify requirements

This information can be used to determine the requirements and needs for environmental assessment, and/or environmental consent, for any options which will be considered. This will inform the scope of additional data to be captured and determine whether environmental assessments are necessary in Stage 2.

The nature, scale and impact of the proposed asset transfer or decommissioning should identify whether an environmental impact assessment (EIA) is required. As part of that process, it is necessary to identify the boundaries of any EIA (if required), which may be

different from the project boundary according to the zone of impact and requirements of different receptors. Details of environmental legislation are contained in section 6.5.

3.2.5 Finance and funding

3.2.5.1 Initial estimates

An initial high-level assessment of the costs (and economic damages/benefits) of transfer or decommissioning options is useful to inform the early discussions and the decision to proceed.

3.2.5.2 Asset transfer

For asset transfer, the likely opportunities and beneficiaries of assets for non-FCERM purposes, should be considered.

As part of this process, potential future funding sources (see section 7.4 Funding sources) alongside potential future operators should be identified (linked to activity under Chapter 4). The funding source may well be related strongly to the potential future asset operator. This must be considered early alongside considering who is likely to be receiving the asset(s) via transfer.

3.2.5.3 Asset decommissioning

For asset decommissioning, the likely opportunities and beneficiaries of the asset ceasing to exist should be researched and recorded.

As part of this process, potential funding sources to help achieve these benefits should be identified.

Potential funders may include the current operator’s funding sources (to fund initial decommissioning of the asset), supplemented by funds that then enable any opportunities arising to be exploited, such as the resale of materials arising from decommissioning, or the creation of new habitat/amenity value (or other ecosystem services).

3.2.6 Stakeholder engagement

3.2.6.1 Develop a stakeholder engagement plan

Developing a stakeholder engagement plan (SEP) should clearly set out who to engage with, when, why, and how, throughout the process (see section 8.1 Develop a stakeholder engagement plan).

The SEP should:

- identify and list stakeholders
- analyse those stakeholders, to understand the likely role or degree of influence and power and how affected they may be

The decision to change from the current management approach may already have been influenced by stakeholder input or opinion. Therefore, previous engagements should be reviewed to ensure elements are fully understood, including any political/environmental sensitivities (see section 8.2 Stakeholders).

Important to note: stakeholder engagement always needs to be proportionate and reflect the nature, scale, timescale and potential impacts of what is proposed. On projects where the engagement is relatively straightforward, the stakeholders may just be limited to asset operators and landowners. On other projects however, the SEP may need to reflect a broader range of interested parties.

The SEP provides an opportunity to review whether those responsible for leading the exploration of asset transfer or decommissioning options have the appropriate resources required to carry out effective engagement.

3.2.6.2 Carry out Stage 1 engagement activities

Initial engagement tasks will be those that help contribute to the initial assessment of asset transfer and decommissioning options. In most cases, the first stage of engagement is likely to focus on building a better understanding of the situation, considering a wide range of options, and identifying solutions which are more likely to be locally acceptable.

This engagement with stakeholders should gather information to help understand the asset, its function and performance and any site-specific elements (to include flooding, coastal erosion, environment and sustainability). It should consider the range of options covering transfer (handover/sale) and decommissioning (partial demolition/full demolition/abandonment), and the associated risks, opportunities, costs and benefits.

3.3 Stage 2 – detailed assessment

The decisions required for detailed assessment are depicted in Figure 3.3, and is considered once Stage 1- initial assessment has been completed.

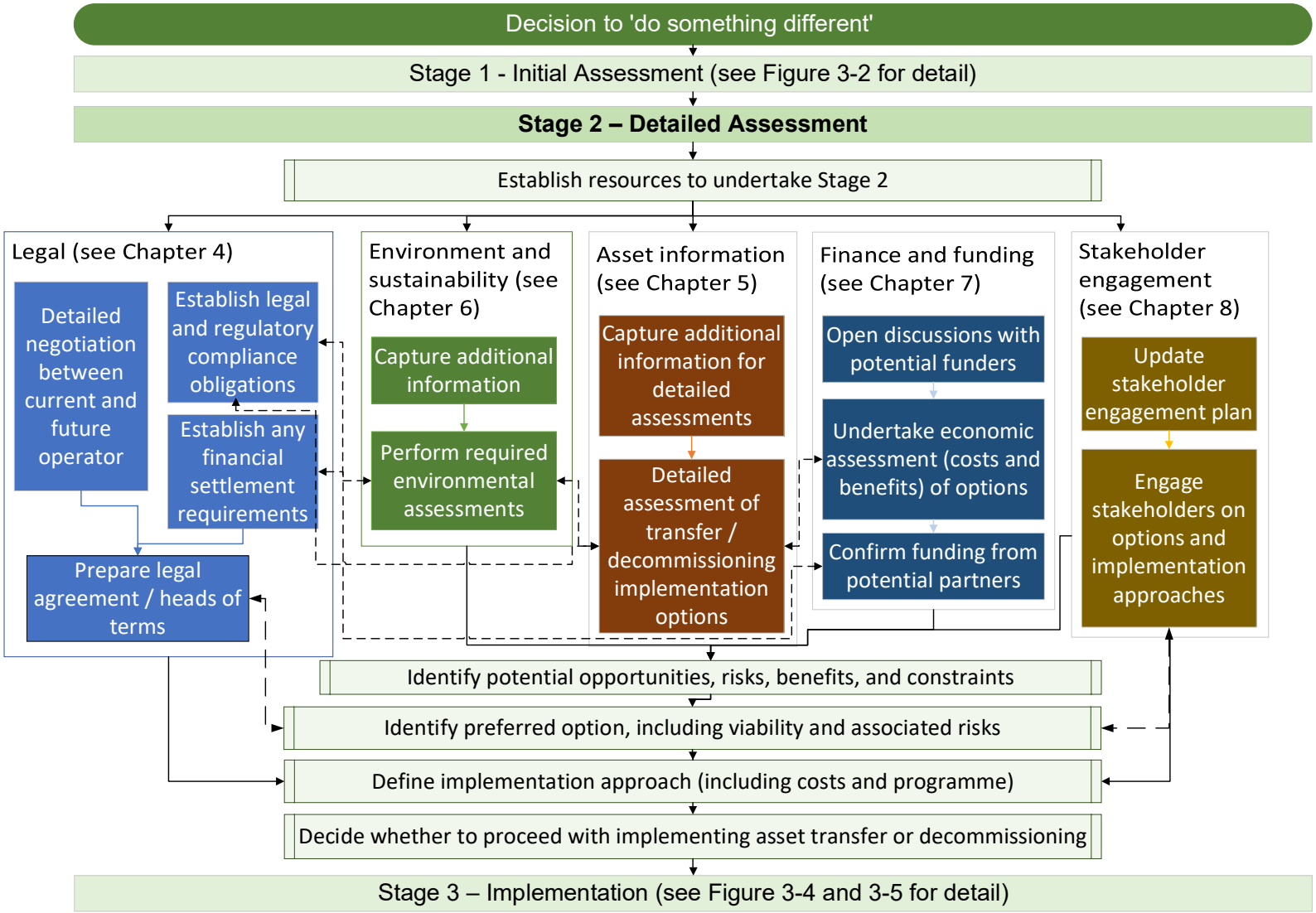


Figure 3.3: Flowchart depiction of actions required for Stage 2 - Detailed assessment and preparation for implementation
(note: only primary links and inputs between tasks are shown – there should be continuous liaison between simultaneous tasks throughout the process)

The flow chart in Figure 3.3 sets out the following 5 aspects which need to be considered for Stage 2:

Legal and regulatory (more information in Chapter 4) which includes:

- detailed negotiation between current and future operator
- establish legal and regulatory compliance obligations
- establish any financial settlement requirements
- prepare legal agreement/heads of terms

Environment and sustainability (more information in Chapter 6) which includes:

- capture additional information
- preform required environmental assessments

Asset information (more information in Chapter 5) which includes:

- capture additional information for detailed assessments
- detailed assessment of transfer/decommissioning implementation options

Finance and funding (more information in Chapter 7) which includes:

- open discussion with potential funders
- carry out economic assessment (costs and benefits) options
- confirm funding from potential partners

Stakeholder engagement (more information in Chapter 8) which includes:

- update stakeholder engagement plan
- engage stakeholders' options and implementation approaches

Once these 5 considerations have been made, identify the following:

- any potential opportunities, risks, benefits and constraints
- preferred option, including viability and associated risks
- define implementation approach, including costs and programme
- decide whether to proceed with implementing asset transfer or decommissioning

If the answer to the final question is *yes*, then move on to Stage 3 – Implementation.

3.3.1 Overview

Stage 2 begins once the decision to proceed with either asset transfer or asset decommissioning has been confirmed at the end of Stage 1- assessment. Stage 2 involves gathering sufficient further data and detailed assessments of different factors, in order to refine, confirm the viability of, and select a preferred option.

The outcome from this stage will therefore be to confirm the preferred option. This decision, together with the production of an implementation plan (which includes costs and programme), should be confirmed and communicated to stakeholders/regulators as appropriate during Stage 3 – Implementation (see Chapters 4 and 8). Using this plan is crucial for managing the project, as well as for stakeholder engagement.

3.3.1.1 Mitigate against delays

Several of those who attended the workshops in the earlier stages of producing this report emphasised the importance of good planning, and that it was all too easy to underestimate the time and cost to complete the processes of transfer and decommissioning.

It may be prudent to begin obtaining the necessary regulatory consents that may be needed at an early stage. These can have protracted timescales. Applying for these as soon as possible may avoid significant delays to the asset transfer/ decommissioning process.

The funding needed to implement the asset transfer or decommissioning should also be established as soon as possible, to help achieve any potential benefits identified, and/or to manage ongoing residual risks (for example, to public safety).

Important to note: the original decision to 'do something different' should have been taken based on assessment of the information available at that time. Often the subsequent process will confirm the soundness of that initial decision. However, the process also offers the opportunity to reconsider the original decision and/or the conclusions of Stage 1. If the findings from this detailed assessment bring significant new evidence to light, or show that the selected option is not viable, alternative options will need to be explored. Stage 2 concludes only when a way forward has been determined.

The following sub-s describe the main steps to be taken during Stage 2 to inform this decision. Where the two processes of transfer and decommissioning require different tasks to be carried out, they are discussed under separate headings.

3.3.2 Legal and regulatory

3.3.2.1 Asset transfer

The current and future operator will need to agree the terms upon which assets transfer and document this in a written legal agreement. If the issues to be covered are more complex, it may be beneficial to first prepare heads of terms to capture the broad scope and principles the parties are agreed upon before beginning detailed drafting.

Any agreement will need to take account of current legal and regulatory requirements for the asset, for example, by providing that transfer only takes effect once necessary regulatory consents have been transferred to the new operator.

3.3.2.2 Asset decommissioning

Legal obligations (if any) regarding the current assets must be researched and reviewed, to ensure they are fully understood and considered.

Detailed assessment of the steps to be taken to ensure legal and regulatory compliance of decommissioning options should be done at this stage. This might involve assessing and communicating residual risks to (potentially) affected parties, which could include items such as health and safety and environmental risks, to allow these to be taken into account and managed appropriately.

3.3.3 Asset information

3.3.3.1 Assessment of options

Additional data identified in Stage 1 assessment as necessary for a detailed assessment will need to be collected. This could include specific surveys or modelling of the area/asset being considered.

A detailed assessment of transfer/decommissioning implementation options will generally be required. As part of this approach, it may be necessary to refine the understanding of how different assets work together as a system. A risk-based approach/assessment is recommended to quantify risks and required mitigations.

3.3.3.2 Asset transfer

As part of the transfer process, it may be necessary to identify any potential opportunities/benefits, and technical constraints on what may or may not be viable by any future operator (for example, any system-wide connectivity implications of certain actions) (see sections 5.3 Assessments to be carried out and 4.2 Asset transfer specific arrangements).

Further engagement between the current and new operator will be required to determine the data to be handed over as part of the agreement (see section 5.2 Information to be provided, and chapters 4 and 8).

3.3.3.3 Asset decommissioning

In some cases, it will be necessary to carry out a detailed flood and/or coastal erosion risk and/or benefits assessment for implementing decommissioning (for example, in one or multiple phases). This includes assessment of health, safety and welfare issues associated with the method for decommissioning the asset and/or residual safety risks if an asset is simply abandoned and left to deteriorate.

3.3.4 Environment and sustainability

Any required environmental analyses or assessments should be completed to comply with relevant regulations (see section 6.5). Depending on the nature of the proposal and any site-specific impacts, these assessments could include, for example:

- environmental impact assessment
- ‘appropriate assessment’ in relation to certain protected habitats
- flood risk assessment
- Water Framework Directive assessment

The environmental assessments should help confirm which regulatory consents are required in order to decommission or transfer assets and may be important steps in securing these consents.

3.3.4.1 Asset transfer

The current operator will need to engage with the future owner to identify any viable, potential opportunities/benefits and constraints (for example, any system-wide connectivity implications of certain actions) (see section 5.3.1 FCERM considerations).

The potential environmental opportunities could include habitat restoration, enhancement or maintenance to justify the decommissioning of assets or fulfil FCERM objectives.

3.3.4.2 Asset decommissioning

The residual environmental risks and benefits of options need to be assessed for full or partial decommissioning, depending whether implementation is done in one go or in stages (see section 5.3.1 FCERM considerations and 7.3 Economic benefits of asset transfer or decommissioning).

If the approach is to simply cease asset maintenance, the environmental risks and benefits still need to be assessed.

3.3.5 Finance and funding

3.3.5.1 Economic assessment

Depending on the individual situation, it may be necessary to carry out a more detailed economic assessment of options (see section 7.1 Financial and economic assessment of asset transfer and decommissioning options).

As part of the decommissioning process, a detailed assessment of the costs, including environmental costs, and benefits of the decommissioning should be considered.

If asset transfer is planned, any financial settlement as part of negotiating asset transfer (see section 4.1.2 Financial compensation) should be calculated.

3.3.6 Stakeholder engagement

3.3.6.1 Review stakeholder engagement plan (SEP)

Once the decision to proceed is confirmed at the end of Stage 1, the SEP should be updated, and, in particular, focus on those stakeholders or organisations specifically relevant to any potential option(s) identified by this stage. It is also important to identify those stakeholders who are critical to the process due to their legislative or regulatory function, as well as those that may be potential objectors or advocates to the project.

Important to note: the SEP and activities need to reflect whether the options being considered are likely to be decommissioning or transfer, noting that the approach to dealing with these may be different (see Chapter 8).

3.3.6.2 Carry out Stage 2 engagement activities

Potentially affected stakeholders should be engaged to inform and seek views on options and their implementation. The main messages should be explained, including the range of options and the process that will be followed to identify a preferred option.

The amount and nature of that stakeholder involvement will differ in each situation. Further details can be found in Chapter 8. At this stage, the focus may be on a wider collaborative process to gather information and understanding to help appraise the decommissioning/transfer options.

3.4 Stage 3 – implementation

Figures 3.4 and 3.5 below depict the flow chart routes for Stage 3 – Implementation. Once Stage 1 assessment and Stage 2 – Detailed assessment have been completed, Stage 3 – Implementation is divided into 2 routes: asset transfer (Figure 3.4) and decommissioning (Figure 3.5).

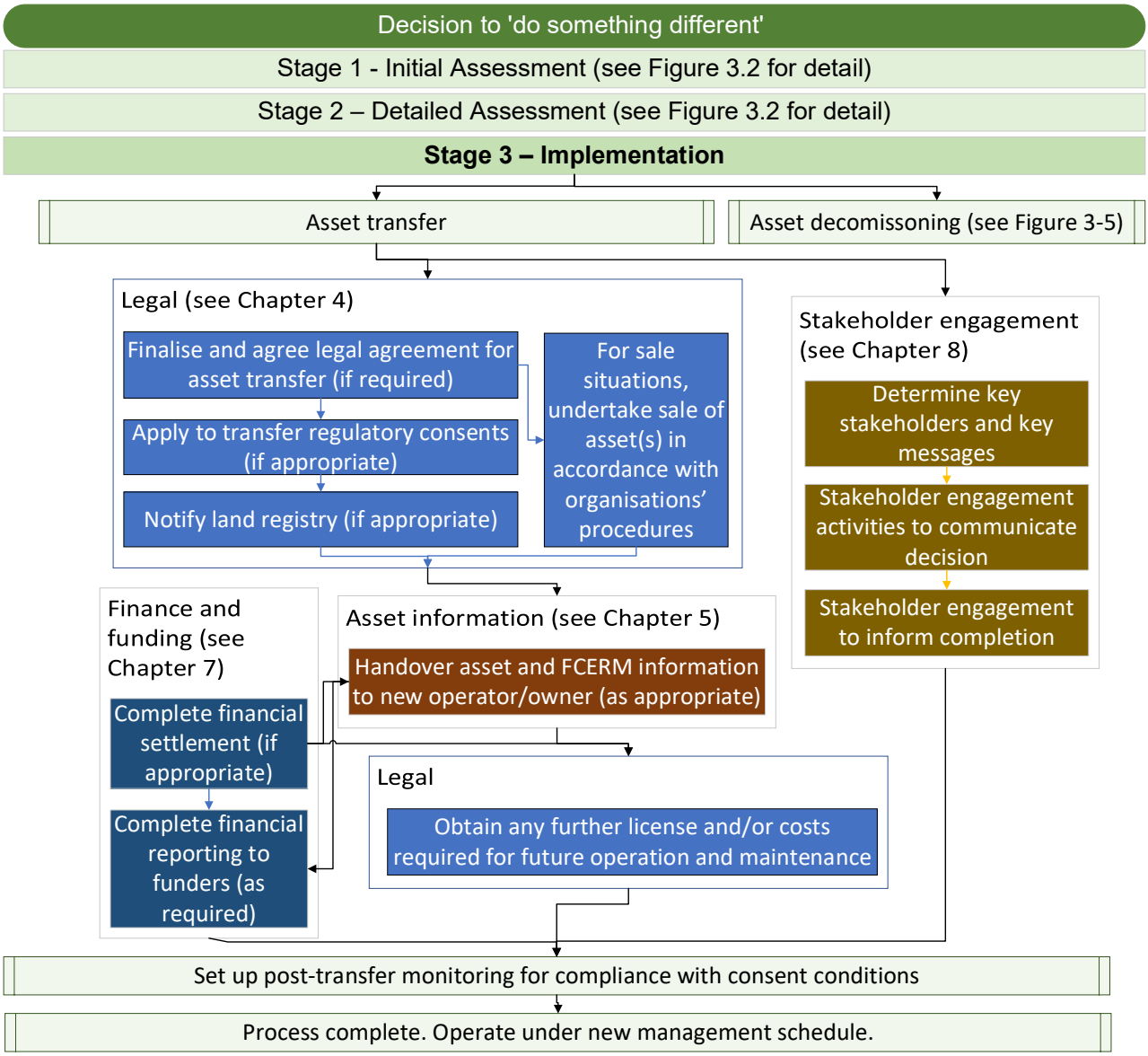


Figure 3.4: Flowchart depiction of actions required for Stage 3 – Implementation of asset transfer
(note for Figure 3.4: only primary links and inputs between tasks are shown – there should be continuous liaison between simultaneous tasks throughout the process)

For implementation of asset transfer, the flowchart in Figure 3.4 shows that the following considerations are required.

Legal and regulatory (more information in Chapter 4) which includes:

- finalise and agree legal agreement for asset transfer (if required)
- apply to transfer regulatory consents (if appropriate)
- for SALE situations carry out sale of asset(s) in accordance with organisations' procedures
- notify Land Registry (If appropriate)
- obtain any further licences and or consents required for future operation and maintenance

Asset information (more information in Chapter 5) which includes handing over asset and FCERM information to new operator/owner (as appropriate)

Finance and funding (more information in Chapter 7) which includes:

- complete financial settlement (if appropriate)
- complete financial reporting to funders (as required)

Stakeholder engagement (more information in Chapter 8) which includes:

- determine main stakeholders and main messages
- stakeholder engagement activities to communicate decision
- Stakeholder engagement to inform completion

Once these considerations are complete the next stage is to set up post-transfer monitoring for compliance with consent conditions as appropriate. When the post transfer arrangements are in place the process is complete, and the asset should continue to operate under the changed management approach.

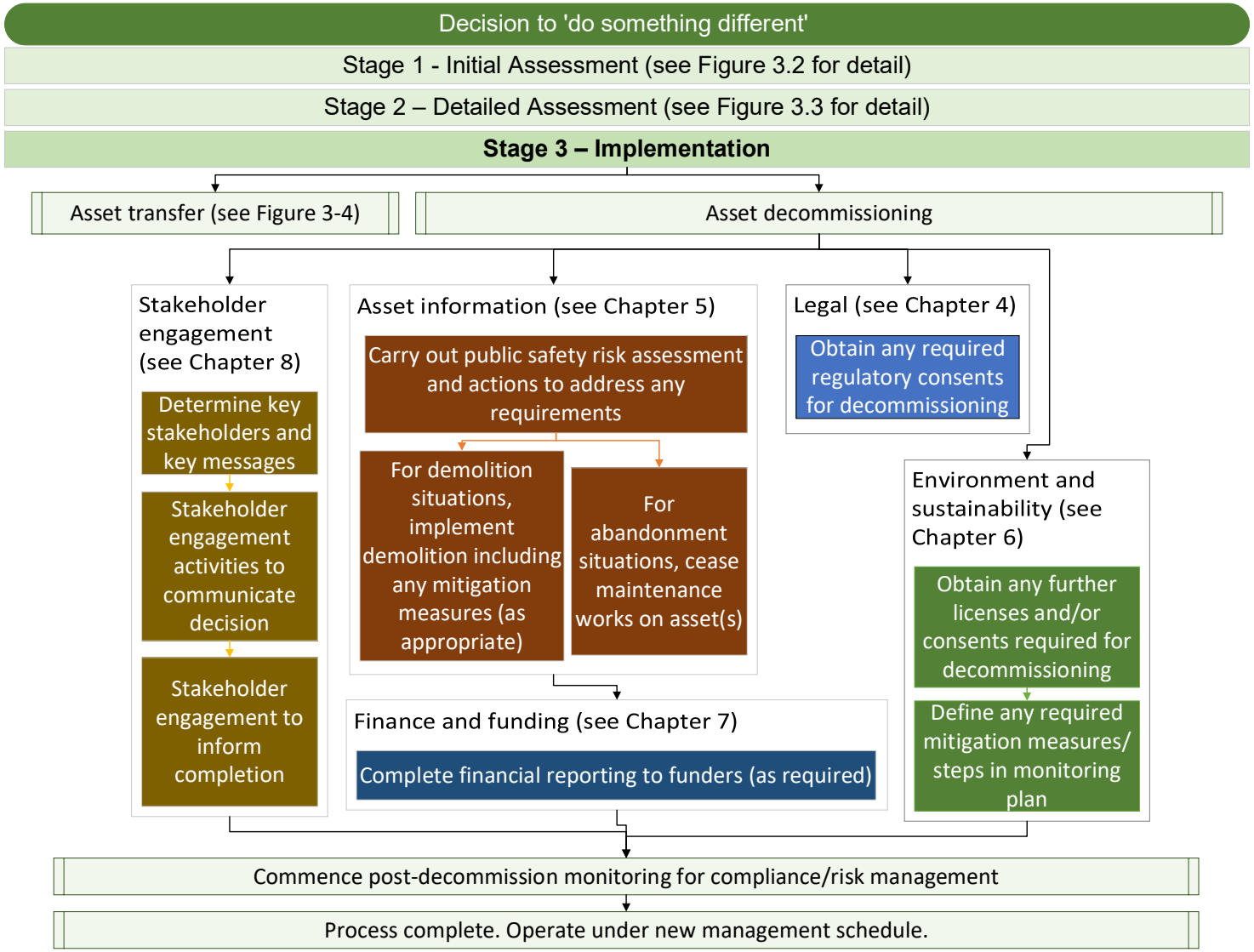


Figure 3.5: Flowchart depiction of actions required for Stage 3 – Implementation of asset decommissioning
(note: only primary links and inputs between tasks are shown – there should be continuous liaison between simultaneous tasks throughout the process)

For asset decommissioning Figure 3.5 shows that the following considerations are required

Legal and regulatory (more information in Chapter 4):

obtain any required regulatory consents for decommissioning

Asset information (more information in Chapter 5):

- carry out public safety risk assessment and actions to address any requirements
- for demolition situations, implement demolition, including any mitigation measures (as appropriate)
- for abandonment situations, cease maintenance works on asset(s)

Environment and suitability (more information in Chapter 6):

- obtain any further licences and or consents required for decommissioning
- define any required mitigation measures/steps in monitoring plan

Finance and funding (more information in Chapter 7):

complete financial reporting to funders (as required)

Stakeholder engagement (more information in Chapter 8):

- determine main stakeholders and main messages
- stakeholder engagement activities to communicate decision
- stakeholder engagement to inform completion

Once these considerations have been made, post-decommissioning monitoring for compliance/risk management can then begin (as appropriate), ensuring all post-decommissioning arrangements are in place. The process is then complete, and operation can continue under the changed management approach.

3.4.1 Overview

This final stage involves implementing the selected change in management approach confirmed at the end of Stage 2. This includes finalising relevant consents and approvals, as appropriate, and completing the sale, handover or decommissioning activities, as well as communicating the change to stakeholders. During this stage, any post-implementation requirements for future management of the asset should be established.

The outcome from Stage 3 will be the completion of the asset transfer or decommissioning. The change in status shall be recorded and all relevant data archived. The following sub-sections describe the main steps to be taken.

3.4.2 Legal and regulatory

3.4.2.1 Asset transfer

The final legal agreement should be completed for the legal transfer of assets to the new operator. Other steps may include assigning existing contracts relating to the asset (for example, warranties) to the new operator and notifying the Land Registry of a change in land ownership (or completing ‘first registration’ if the land ownership has not previously been registered).

The parties may need to apply to transfer existing regulatory consents into the name of the new operator. If required, the new operator may also need to obtain any consents to carry out future maintenance. After the transfer, the new operator will become responsible for compliance with any existing or new consent conditions.

3.4.2.2 Asset decommissioning

All necessary regulatory consents should be obtained prior to decommissioning occurring. Once the asset is fully decommissioned, any consent conditions should be complied with.

3.4.3 Asset information

At the end of Stage 2 the preferred option will have been confirmed and any residual risks identified and communicated.

The implementation method is specific to whether the asset is decommissioned or transferred, as follows:

3.4.3.1 Asset transfer

All handover information on the asset should be provided to the new operator, including details of past maintenance and any regulatory consents that are required (refer to section 5.2 Information to be provided*)*. All governance and obligations will then be taken forward by the new operator.

3.4.3.2 Asset decommissioning

Once asset decommissioning has been implemented, monitoring of the post-implementation impacts such as residual flood or erosion risks should begin. Public safety risk assessments should also be reviewed by the asset owner and updated as necessary with any actions addressed.

3.4.4 Environment and sustainability

Before implementation can be completed, the necessary regulatory consents will need to have been obtained (see Chapter 4 Legal and regulatory framework).

3.4.4.1 Asset transfer

As part of asset transfer, the new operator will be required to obtain any further consents to carry out future operation and maintenance (if appropriate).

3.4.4.2 Asset decommissioning

All relevant consents specifically required to allow decommissioning will need to be acquired.

In some cases, mitigation measures will also need to be adopted as identified as part of the environmental assessments and/or to prevent infringement of statutory obligations. This should be followed by post-monitoring implementation to ensure compliance with any consent conditions.

3.4.5 Finance and funding

Depending on the circumstances of the asset transfer/decommissioning, 2 further items may be required:

1. The financial settlement (if appropriate).
2. Financial reporting to funders (as required).

3.4.6 Stakeholder engagement

Before starting Stage 3 the preferred option and approach to its implementation will have already been confirmed and may have been communicated to stakeholders (see Chapter 5 Asset information). The nature and tone of any further engagement activities may then change considerably, which should be reflected in an updated SEP for the final stage. Reference should also be made to Chapter 8.

3.4.6.1 Update stakeholder engagement plan

The SEP should be updated to reflect the context of the final decision made about the preferred option to transfer or decommission, in particular:

- the stakeholder list should be reviewed and, if necessary, revised to ensure that it is focused on the preferred option and those stakeholders who remain relevant in this context, such as those with responsibility for any consenting or legal processes
- main messages should be reviewed and updated to describe the decisions taken at the end of Stage 2.

3.4.6.2 Carry out Stage 3 engagement activities

Messaging at this stage needs to be clear about what decisions have been taken and the anticipated impacts, including any uncertainty, as well as the next stages and timescale.

On completion of any asset transfer, the stakeholders should be informed when the process is complete.

During asset decommissioning continual engagement with stakeholders may be appropriate to keep them informed of the implementation progress through to completion.

Part B – Topic-specific information

4 Legal and regulatory framework

4.1 Overview

Legal advice should be sought from an early stage in the process as legal and regulatory matters can take considerable time to resolve. They may lead to delays in implementing asset transfer or decommissioning, particularly if there is a legal challenge. This is especially important if there is a timeframe within which the transfer or decommissioning needs to be achieved (for example, aligned to the period over which funding is available). Existing agreements, perhaps historical local undertakings, can also fundamentally change the range of options that are available, so should be identified early on.

This chapter sets out legal aspects to be considered when transferring or decommissioning an asset(s) and includes (or references) some of the consenting processes and important legislation that are typically encountered when carrying out this process.

Important to note: this document provides general points for consideration. It is not a reflection of the Environment Agency's position in respect of liability for flood risk assets, which would in all cases require an in-depth analysis of the facts. In addition, legal and regulatory requirements may change over time. Any operator transferring or decommissioning an FCERM asset or system of assets, or indeed those being asked to receive transferred assets, will need to seek their own independent legal advice to ensure this is tailored to their specific situation.

4.1.1 Principles of soundness and transparency

When transferring or decommissioning FCERM assets, the process should adhere to general public law principles requiring "transparent and reasonable decision-making by public bodies", with any decisions being based on evidence. In particular, it is essential that any decision:

- takes account of all relevant factors
- disregards irrelevant factors
- is taken in accordance with the principles of natural justice
- is reasonable
- has regard to specific legal requirements relevant to decision-making by public bodies, including equalities issues and human rights

Dealing with point 4, reasonableness is a concept which does not lend itself readily to precise definition and is best evaluated on a case-specific basis. However, as general guidance, there could be grounds for a challenge, including potential judicial review, if

people experience adverse consequences resulting from a decision which no reasonable asset operator could possibly have made. As with all FCERM choices, these decisions must be rational and proportionate. It is therefore important that decisions are supported by appropriate documentation to demonstrate this.

With reference to the final point, it is important for the current operator to act reasonably and to exercise due skill and care in relation to their legal obligations, which derive from both legislation and common law. A summary of some of the relevant legislation is set out in section 4.3.

Landowners should usually be allowed an opportunity to make representations and be given reasonable notice when a decision is made that affects them. Applicable Defra or Welsh Ministers' policy and guidance and other relevant polices should also be considered.

Example: A reasoned decision of abandonment (ceasing maintenance activities previously carried out under permissive powers) of an asset, on the grounds that it is not cost-effective is unlikely to be construed as a deprivation of a human right. However, a decision to refuse consent for private landowners to maintain their own defences may amount to a control of use of the landowner's property requiring careful consideration of the balance between public interests and private rights.

4.1.2 Financial compensation

4.1.2.1 Considerations in regard to asset decommissioning

There is no requirement on RMAs to pay compensation for decommissioning an asset. However, RMAs should consider whether decommissioning an asset is likely to result in foreseeable harm which could, in turn, result in potential negligence or nuisance claims.

4.1.2.2 Considerations in regard to asset transfer

When legal ownership of an asset is transferred, it will be up to the respective parties to negotiate any financial settlement as part of the transfer process. It should be stressed that each situation will depend on its own facts. However, this may include, in addition to a payment from the new operator to the previous operator representing the asset’s market value, a commuted sum of some form paid by the pervious operator to the new operator to enable them to take on the additional financial burden in the immediate future after the asset transfer is completed. Section 7.2 Financial aspects of asset transfer and decommissioning provides further discussion on financial settlement matters regarding asset transfer situations.

4.2 Asset transfer specific arrangements

4.2.1 Who to transfer an asset to?

Most operators seeking to transfer an asset will likely be doing so in one of the following situations:

- the asset is operated and maintained under permissive powers (see section 4.3) by an operator on land that is owned by someone else, and the asset maintenance is to be transferred from the operator to:
    - the landowner
    - a different operator other than the landowner
- the asset is operated and maintained by the operator on land currently owned by that operator

The transfer of an FCERM asset may involve transferring the asset maintenance liability and, depending on the situation, the land on which it is located (and/or potentially access rights to the asset) from the current operator to a new operator.

Transfer of land to another party will involve a legal process which should already be understood (in outline if not in detail) by any party involved in or interested in such a transfer. This includes the legal duty to notify the land registry of a change in registered land ownership, or to complete 'first registration' if the land ownership has not previously been registered.

It is recommended that, when seeking to transfer an asset, the current operator should consider potential transferees in the following order:

1. Competent operator.
   A preferred option is to seek to transfer an FCERM asset to another operator who is competent (in terms of having skills and resources to take on asset maintenance) to carry out the ongoing maintenance of the asset. This may be another RMA such as an existing internal drainage board (IDB) where the asset is within an existing internal drainage district (IDD), or it may be a private individual/organisation, for example, the landowner on whose land the asset sits. It is important to recognise that this may not always be possible, particularly when transfer is to individual small-scale riparian (riverside) owners. Guidance is already available to riparian owners on their rights and responsibilities in this regard (refer to 'Owning a watercourse' on gov.uk). Should a competent operator not be readily identifiable, then other possible alternatives may be considered, see below.
2. Third party.
   Where a competent operator does not presently exist, the current operator should explore the possibility of another party taking on assets (see Transfer of land acquired by compulsory purchase in section 4.2.1) or setting up a new organisation to take on asset responsibility. That might be a special purpose vehicle, management company or community interest company between multiple

owners. In doing so, rules around state aid (see Multiple ownership situations in section 4.2.1) will need to be considered.

3. Split operational responsibility and ownership.
   The current operator could consider transferring only the operational responsibility to a new operator, with ownership remaining with the current operator/owner.
   This might apply when there is an operator better placed to do the maintenance, for example, because their location/function/or nearby related operations makes it more efficient for them to do so.
4. Setting-up a new IDB.
   This is a potential option. Those communities wishing to explore the creation of new IDBs or the expansion of existing IDBs will need to familiarise themselves with the changes set out in the Environment Act 2021 and use the new methodology for calculating drainage rates and special levies detailed in secondary legislation.

Important to note: the Environment Act 2021 amends the financial provisions of the Land Drainage Act such that powers are given to the Secretary of State to make regulations providing alternative methods by which to calculate the annual value of land within an internal drainage district. The creation of new IDBs or expansion of existing drainage boards will take place within this new framework.

Important to note: further details on this are provided in the document “The Environment Act 2021: Impacts and Opportunities for IDBs” published in November 2021, by the Association of Drainage Authorities (ADA).

An overview of the FCERM Framework in England (Defra/Environment Agency, 2011) may help identify potential asset transferees and stakeholders to engage. Natural Resources Wales administers the 12 internal drainage districts in Wales.

4.2.2 Transfer of land acquired by compulsory purchase

Where an asset transfer involves the transfer of land acquired by an RMA by compulsory purchase, it should usually be offered back to the original owner (or their successors in title) before it can be offered to a third party. The law on compulsory purchase can be complex, so it is important to seek case-specific legal advice about such matters.

4.2.3 Multiple ownership situations

4.2.3.1 Where there is more than one owner involved:

Assets such as seawalls, flood defence walls and embankments may extend across land owned by several different landowners. Where the current operator is looking to ‘do something different’, the future integrity of the asset will depend on each of the owners being prepared to maintain their part of the asset, ideally to a common standard. In the event of any one owner being unable or unprepared to maintain their section, the whole defence may cease to function over time unless alternative arrangements can be made to maintain that section.

As part of the process of exploring asset transfer and decommissioning options, all landowners should be engaged to identify the most appropriate option in each situation. In some situations, it may be that transferring assets to each individual landowner is the solution (noting the potential risks of doing so as indicated above).

In other situations, it may be viable for owners to seek legal agreements or consider setting up consortia to manage these multiple ownership assets on their behalf. Elsewhere, it may be necessary for principal beneficiaries to seek their own local arrangements to make sure the asset is maintained. This may, for example, involve an owner being prepared to maintain something on behalf of their neighbours.

4.2.3.2 Where neighbours gain benefit from assets:

Some assets are situated on land that also provides flood/coastal erosion risk protection to neighbouring land. The law is complex in situations such as these where neighbours benefit from an asset that they neither own nor maintain because it is not on their land. Landowners should therefore always seek independent legal advice regarding their responsibilities to their neighbours and other affected parties in relation to any FCERM assets that they maintain on their land. For example, a landowner may wish to seek contributions from a neighbour who also benefits from maintenance of the asset.

4.2.4 State aid

The following is taken from ‘State Aid: The Basics Guide’ (Department for Business, Innovation & Skills, July 2015).

State aid can occur whenever state resources are used to provide assistance that gives organisations an advantage over others.

State aid rules promote a level playing field and ensure we invest well. Navigating them takes time and resource, but it helps policy-makers ensure value for money and avoid unwanted effects.

A scheme that does not follow the rules could be forced to close, even after it is launched. Giving state aid illegally could result in the money having to be clawed back, with possibly very serious consequences for the recipient.

4.2.5 Asset transfer arrangements

As a precursor to transferring an asset between RMAs, it may be possible, in appropriate situations, to use a Public Sector Cooperation Agreement (PSCA), in pursuit of the duty of cooperation under the Flood and Water Management Act 2010. Full asset transfer could then take place at the end of the term of the PSCA.

Further reading: the current guidance in England for PSCAs is the ‘User Guide to the Standard Form Public Sector Cooperation Agreement (PSCA)’ between the Environment Agency and a risk management authority to carry out flood or coastal risk management work (Environment Agency, 2018f).

The value of PSCAs was highlighted at the lessons learnt workshop for the pilot 'Rationalising the Main River Network' projects, hosted by the Environment Agency in March 2019.

In a number of the pilot projects, the process was made much easier thanks to the close working relationship between the Environment Agency and the IDBs where there was already a pre-existing PSCA in place for the IDB to carry out asset maintenance works on behalf of the Environment Agency. This pre-existing relationship via the PSCA meant:

- locals assumed the assets being transferred via the pilots were already the IDB's responsibility, so the official transfer was not a contentious issue to the communities
- the IDB was already familiar with the maintenance standards the Environment Agency required to be met, and the costs to the IDB of doing so, ensuring 'no surprises' on these aspects during the process
- the pre-existing relationship meant both parties could work collaboratively and hold transparent and open discussions about the details, such as funding implications

4.3 Main relevant legislation

This section focuses on the legal framework in England and Wales relevant to FCERM assets, highlighting some important differences between the two. However, the legal framework may well differ further between different areas of the UK. Operators should make themselves aware of other legislative differences when using this section.

A range of legislation underpins when, where, how and why different operators may (or may not) construct, alter, maintain and remove FCERM assets. The following sets out some of the main legislation that may need to be considered. However, it does not purport to be an authoritative explanation of the law. The way in which legislation applies is necessarily case-specific. Other legislation may be applicable, relating to the specific activities (for example, water level/resource management, highways, mining) of different authorities operating assets that could be affected by a decision to transfer or decommission an FCERM asset.

Legislation is available online at: www.legislation.gov.uk. It should be noted that the versions of legislation available from this source may not incorporate all amendments in force as at the date of search.

4.3.1 Rights of appeal

FCERM legislation generally gives RMAs permissive powers in connection with FCERM assets. In some cases, for example, service of notices to maintain under the Coast Protection Act 1949, there are specific rights of appeal against using these powers. Generally however, as use of the powers is discretionary, there are no legislative rights of appeal when an RMA decides to cease maintenance.

RMAs may establish internal appeal/complaint processes that anyone objecting to an RMA decision may make use of. If, following these internal appeal/complaint processes, objectors remain dissatisfied, they can ask a relevant ombudsman (for example, for English local authority RMAs, the Local Government and Social Care Ombudsman) to investigate. It is important to note though that ombudsman remits are limited to maladministration (inefficient or dishonest administration or mismanagement), so their rights of intervention in maintenance decisions are limited.

4.3.2 Coast Protection Act 1949

Maritime district councils and unitary authorities, the Environment Agency and Natural Resources Wales (each a 'coastal erosion risk management authority') are empowered under the Coast Protection Act 1949 to carry out various works, including constructing, maintaining and repairing coastal defences, to manage coastal erosion risks. This is a permissive power and does not compel coastal erosion risk management authorities to install or maintain coast protection measures.

Under this Act, the relevant maritime district council or unitary authority must consent before anyone else, including the Environment Agency or Natural Resources Wales, carries out a range of activities, including constructing any asset to address coastal erosion risks. This consent requirement does not, though, apply to maintaining or repairing existing assets.

Where a coastal erosion risk management authority considers coastal defences are in need of maintenance or repair, it may serve notice on the landowner or occupier requiring them to carry out the necessary works. If the recipient of the notice does not comply by a specified time, the coastal erosion risk management authority may carry out the work itself and (subject to certain exceptions) may recover the cost of doing so from the notice recipient.

4.3.3 Water Resources Act 1991 (as amended)

In England and Wales, the Water Resources Act 1991 gives various statutory powers to the Environment Agency and Natural Resources Wales to carry out works to manage flood risks from ‘main rivers’ (generally larger watercourses) and the sea.

Under this Act, in England the Environment Agency has flood risk functions and powers in relation to the sea and main rivers only. Other bodies such as IDBs and LLFAs have powers under the Land Drainage Act (see section 4.3.4) related to surface water and ordinary watercourses (generally smaller watercourses). Natural Resources Wales has flood risk management powers and functions in relation to the sea and main rivers in Wales and in relation to ordinary watercourses in the 12 internal drainage districts in Wales.

The powers given to the Environment Agency and Natural Resources Wales under the Act are permissive powers. Therefore, they do not compel the responsible authority to take

action to manage flood risk, but do enable the responsible authority to install, maintain and repair assets. They also include the power to alter or remove an asset.

The Act also allows the Environment Agency and Natural Resources Wales to adopt byelaws for flood defence or land drainage purposes. Regional byelaws are in place and apply to the main rivers and the sea and tidal defences in the particular region. They contain legal requirements that riparian and coastal landowners must comply with. These include maintenance obligations, for example, that landowners having control of sea defences or 'river control works' (for example, sluices, culverts, floodgates, weirs and other structures) must maintain those defences/works in a proper state of repair and efficiency. They also allow the relevant authority, by notice, to require landowners to carry out certain maintenance works (for example, bank vegetation clearance).

The Environment Agency and Natural Resources Wales may seek to make changes to the designations of watercourses under the Water Resources Act (re-designating (or 'enmaining') an 'ordinary watercourse' so that it is a 'main river', or 'demaining' a 'main river' so that it is an 'ordinary watercourse'). In England, this is subject to a specific procedure involving reference to specific criteria set by the Secretary of State, initial engagement with relevant authorities, and detailed business planning. In Wales, this is subject to the determination process set out under the Act. As a result of a change in designation, the functions and powers that an authority has in relation to a watercourse would be transferred from one authority to another (the Environment Agency/Natural Resources Wales to an IDB or LLFA in the case of demainment, and vice versa). Consultation with relevant stakeholders usually takes place prior to any formal decision being taken to demain or enmain a watercourse. Once the eventual decision has been made, there is a right of appeal to the Secretary of State or the Welsh Ministers.

4.3.4 Land Drainage Act 1991

The Land Drainage Act 1991 provides permissive powers that enable IDBs and local authorities to carry out works to deal with land drainage issues and flooding from surface waters and ordinary watercourses. These powers include maintaining and altering or removing assets.

Like the Water Resources Act for main rivers, the Land Drainage Act allows IDBs and local authorities to adopt byelaws for flood defence or land drainage purposes in connection with ordinary watercourses. These byelaws can create obligations for riparian landowners to maintain assets on their land with a view to preventing flooding.

The Act itself also sets out rights and obligations of riparian landowners, further details of which are described in these helpful guides:

- Environment Agency - Owning a watercourse (February 2018)
- Natural Resources Wales – Riverside Landowners' Rights and Responsibilities (February 2018)

From these two published guidance sources, the following main points are to be noted.

That a riparian landowner has a responsibility to manage his/her own flood risk (see Transfer of land acquired by compulsory purchase in section 4.2.1)

That an RMA may designate a feature on the owner's land as a flood risk management asset. Features and structures such as garden walls that were not designed to manage flood risk can still help to do that job. The RMA must give at least 28 days' notice if it decides to do this. It must also give details of the feature and explain why it wants to designate it. The owner has a right to challenge any designation if he/she does not agree with what is proposed. Features and structures that have been designated as an asset cannot be altered, removed or replaced without the consent of the responsible authority. NB: this is empowered under the Flood and Water Management Act 2010 – see section 4.3.5 Flood and Water Management Act 2010)

4.3.4.1 Overview of riparian ownership and the possible responsibilities of riparian owners

It should be noted that flood defences built on land are generally presumed to form part of that land and, therefore, to form part of the landowner's property.

A landowner and the RMA may therefore wish to enter into a contractual relationship in respect of the land on which the flood or coastal defence asset is situated, or in relation to the asset itself. In that case, any relevant documents (a lease or maintenance agreement, for example) may set out liability and maintenance provisions in respect of the asset.

In the absence of specific agreements, what can and should be done in respect of that flood defence asset (maintenance, repair, removal etc.) and by whom, may depend on many factors. In this regard, it is important to bear in mind that:

- a RMA's permissive powers in respect of flood and coastal risk will generally give the RMA the right to construct and, subsequently, access the asset to carry out works (but not an obligation to do so)
- legislation exists to control what can happen to flood defences - most prominently, the Environmental Permitting (England and Wales) Regulations 2016 are designed to ensure that landowners do not interfere with watercourses or flood defences in such a way that flood risk increases – and landowners who are in doubt as to their legal position in this regard may wish to seek independent legal advice to ensure compliance with these Regulations
- landowners are not automatically required by RMAs to maintain flood/coastal defences on their land and may, therefore in certain circumstances, choose not to maintain such defences either to a set standard or, at all - this is subject to important caveats (in respect of which landowners may again wish to obtain independent legal advice), and including but not limited to:
    - the existence of local legislation, byelaws, historic obligations or agreements between landowners which impose specific requirements or standards
    - a landowner's "measured duty of care" to do what is reasonable such that that hazards (such as flooding and coastal erosion) caused or exacerbated by the condition of their land do not harm their neighbours

It is also important to note the general riparian presumption that an owner of land adjacent to a river owns the bank and bed of that river up to the mid-point. When land is transferred, it is presumed that so too is the riverbank and bed accompanying that land, even if this is not stated in the conveyance.

Please note that this overview is provided for general information only, not for the purpose of providing legal advice and does not necessarily reflect all present law and/or regulations. It is not therefore intended to be comprehensive nor include advice which may be relied upon or otherwise referred to. You should always seek independent legal advice on any specific legal matter.

4.3.5 Flood and Water Management Act 2010

The Flood and Water Management Act 2010 sets out statutory provisions relating to flood and coastal erosion risk management in England and Wales. Important points to note about the 2010 Act in relation to FCERM asset transfer or decommissioning are that:

- it strengthens the Environment Agency's strategic overview role for flood and coastal erosion risk management in England (Welsh Ministers are responsible for this in Wales) - for example, it requires the Environment Agency in England and Welsh Ministers in Wales to maintain a national FCERM strategy
- all RMAs must act consistently with the applicable national FCERM strategy when exercising their FCERM functions
- it requires all RMAs to engage with each other to address flood risks in a co-ordinated way (‘duty to co-operate’) - this cooperation may extend to how RMAs consent to any flood risk management activities carried out by other authorities or third parties
- it provides powers for the Environment Agency, Natural Resources Wales, IDBs, district councils and LLFAs to designate third-party assets, including those of riparian owners, as flood risk management assets where they serve to support flood or coastal erosion risk management efforts - even if they are not constructed for that function as a result of designation, a person (owner) may not alter, remove or replace a designated structure or feature without the consent of the responsible authority

4.4 Other relevant information

A range of other legislative powers and duties may apply to asset transfer and decommissioning. What powers and duties apply, and how any applicable duties are complied with, will be highly fact specific, so it is important that readers seek their own legal advice about these matters. Examples of potentially relevant powers and duties are set out below.

4.4.1 Health and Safety

4.4.1.1 Occupiers' Liability Act 1957

Obliges an occupier of land to take reasonable care in all circumstances to see that their visitors are reasonably safe.

4.4.1.2 Occupiers’ Liability Act 1984

Obliges an occupier of land to take reasonable care in all circumstances to see that persons other than their visitors (for example, trespassers) are not injured due to certain known dangers.

4.4.1.3 Construction (Design and Management) Regulations 2015

Applies when carrying out construction projects, including demolition works. Imposes duties on parties engaged in the project relating to managing the health, safety and welfare of people affected by the project.

4.4.2 Equality and human rights

4.4.2.1 Equality Act 2010

The Equality Act 2010 obliges public authorities, including RMAs, to comply with the public sector equality duty.

4.4.3 Financial

4.4.3.1 Environment Act 1995

The Environment Act 1995 requires, where it is reasonable to do so, that the Environment Agency take into account the likely costs, including environmental costs, and benefits of its proposals. Similar considerations should apply to other RMAs, for example, through the need to follow principles set out in HM Treasury guidance, ‘Managing Public Money’.

4.4.4 Environment and sustainability

4.4.4.1 National Parks and Access to the Countryside Act 1949/Norfolk and Suffolk Broads Act 1988

Applies when a National Park may be affected and creates certain obligations to consider factors relevant to wildlife and natural beauty and, in the case of the Norfolk Broads, navigation.

4.4.4.2 Wildlife and Countryside Act 1981

When a SSSI may be affected, this Act requires people, including landowners and RMAs, to comply with certain duties relating to engagement with Natural England (NE)/Natural Resources Wales (NRW) and protection of the SSSI.

4.4.4.3 Land Drainage Act 1991

Places certain duties on IDBs and local authorities to further conservation, and have regard to various wildlife, cultural and recreational interests, when formulating or considering proposals. Also places duties on IDBs and local authorities to consult with NE/NRW and with National Park Authorities before carrying out certain activities.

4.4.4.4 Environment Act 1995

Places various duties on the Environment Agency in relation to environmental matters, including duties similar to those of IDBs and local authorities under the Land Drainage Act 1991 and Flood and Water Management Act 2010 referred to above/below.

4.4.4.5 Countryside and Rights of Way Act 2000

Applies when an Area of Outstanding Natural Beauty may be affected and creates certain obligations to consider factors relevant to wildlife and natural beauty.

4.4.4.6 Natural Environment and Rural Communities Act 2006

Obliges public authorities, including RMAs, to have regard to wildlife conservation so far as is consistent with the proper exercise of their functions.

4.4.4.7 Marine and Coastal Access Act 2009

Where asset transfer or decommissioning concerns coastal or estuarine assets, this Act can require that certain marine planning documents are considered. Where asset transfer or decommissioning may affect marine conservation zones (MCZs), it also imposes certain obligations to protect these MCZs.

4.4.4.8 Flood and Water Management Act 2010

Obliges IDBs, local authorities and highways authorities, in carrying out FCERM activities, to aim to contribute towards sustainable development.

4.4.4.9 Conservation of Habitats and Species Regulations 2017

Places duties on public authorities, including RMAs, with respect to certain protected habitats and species. In some instances, an ‘appropriate assessment’ of the implications for protected sites of a decision to ‘do something different’ may be required.

4.4.4.10 Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Places duties on public authorities, including RMAs, with respect to achieving the objectives of the Water Framework Directive and other EU Directives.

4.4.4.11 Environmental Impact Assessment (Land Drainage Improvement Works) Regulations 1999/Town and Country Planning (Environmental Impact Assessment) Regulations 2017

Depending on the specific steps proposed, these regulations can require the environmental effects of a proposal to be assessed and taken into account.

4.4.5 Wales-specific obligations

4.4.5.1 Natural Resources Body for Wales (Establishment) Order 2012

Places a duty on NRW to apply the principles of the sustainable management of natural resources (SMNR) in carrying out its functions.

Places various duties on NRW in respect of environmental matters similar to those on other RMAs and the Environment Agency under the Land Drainage Act 1991, Environment Act 1995 and Flood and Water Management Act 2010 (see above).

Places a duty on NRW to consider the costs and benefits (including environmental) of its proposals (similar to the duty the Environment Act 1995 places on the Environment Agency).

4.4.5.2 Well-being of Future Generations (Wales) Act 2015

Places a duty on public bodies in Wales to carry out sustainable development (the process of improving the economic, social, environmental, and cultural well-being of Wales) by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals set out in the Act.

4.4.5.3 Environment (Wales) Act 2016

Sets out the principles of SMNR, further to the Natural Resources Body for Wales (Establishment) Order 2012.

4.5 Regulatory consents

Early in Stage 1 of the process of asset transfer or decommissioning, operators should identify the regulatory consents they hold in connection with the asset in question. They may also wish to identify any regulatory consents that may be required in the future to:

- allow ongoing asset maintenance by a new operator following asset transfer
- enable asset decommissioning to proceed

Determining the regulatory consents required will involve engagement with a variety of statutory regulators (refer to Chapter 8 Stakeholder engagement).

Example: obtaining consents can take a long time, as demonstrated by the National Trust's experience in decommissioning assets at Brownsea Island (Case study 2 – Poole, Dorset, in Chapter 9) where the process took around 9 months.

The section below identifies a number of typical regulatory consents that asset operators may require (refer to section 4.5.8) giving further information on the matter of waste legislation and consents. Failure to obtain, or subsequently comply with, regulatory consents can lead to criminal sanctions on the operator.

4.5.1 Environmental permit, including flood risk activity permits (formerly flood defence consents) [Environment Agency/Natural Resources Wales]

Permits for installations, waste or mining waste operations, water discharge or groundwater activities, or work on or near a main river or sea defence or other watercourses. These are the England Flood risk activity permit published 6 April 2016 (updated 28 September 2022) and the Wales Flood risk activity permit published 6 April 2016 (updated 17 June 2019).

4.5.2 Abstraction or impoundment licence (Environment Agency/Natural Resources Wales)

Licences to abstract water from a watercourse or impound water in a watercourse can be found here: water abstraction licences published 8 May 2014 (updated 1 June 2023).

4.5.3 Marine licences

Under the Marine and Coastal Access Act 2009 many activities involving depositing or removing a substance or object at sea or in tidal waters may require a marine licence. These licences are available from the Marine Management Organisation (MMO) in England and Natural Resources Wales (NRW) in Wales.

A licence may be required for works on flood/coastal defence assets that are tidal and below mean high water spring tides, although maintenance of existing FCERM assets is normally exempt. However, such exemption does not apply to works which are regarded as development and are subject to the planning system. Guidance on activities that may require a marine licence is available on the government website published 2 October 2014.

4.5.4 Listed building consent (Local planning authority)

Includes permit requirements for listed buildings and sets out the rules on what needs permission or consent for various categories of work and how it may be obtained.

4.5.5 Wildlife licences (Natural England/NRW)

Wildlife licences are required from Natural England or NRW if works may disturb or remove protected wildlife, such as water voles or badgers, or if the works may damage their habitats. Guidance on wildlife licensing can be found at England licences Published 13 October 2014 (updated 11 October 2022) and Wales licences.

4.5.6 Planning consent (Local planning authority)

The local planning authority should be engaged to determine if asset decommissioning in particular requires specific planning consent to be granted. This may include a requirement for a demolition order and/or waste management plan to dispose of materials if decommissioning takes the form of full or partial demolition of assets.

Proposals to rebuild or replace or to change the footprint, overall level or composition of a flood/coastal defence asset are not classed as maintenance. Local authority planning permission (in addition to consents from the Environment Agency, Natural England, NRW), may be required where a landowner wishes to change or improve an asset following asset transfer. This is known as development.

Examples of change or improvement works that may constitute development and therefore require planning permission are:

- raising the overall level of a defence structure
- widening a defence structure
- changing the shape or the composition (material) of a defence structure

Landowners and affected parties must always check with their local planning authority when considering development to determine at an early stage whether or not planning permission is required and whether an environmental impact assessment (EIA) will be needed.

4.5.7 Rights of way (Local planning authority/Natural England/Welsh Government)

Typically, when transferring an asset(s) which include(s) public footpaths and rights of way along/over/through them, these rights of way are transferred along with the asset. This is something that should be considered as part of the asset transfer negotiation.

If there is a right of way on or over an asset, it should not directly prevent the current operator from no longer maintaining that asset if it is considered to be uneconomic to do so. There is no legal responsibility to maintain an asset in order to preserve a public right of way. However, an operator may have entered into local agreements to do so, and this will need to be confirmed as part of understanding the asset and all legal and regulatory factors associated with it.

Where an asset(s) is to be decommissioned, the impact on rights of way is an important consideration in any planning consent application, for example, if it then poses an unacceptable risk to the public. It will be important as part of the planning application to demonstrate that a new, diverted route can be provided; or if not, seek to have the right of way extinguished through a formal process with the planning authority.

The exception to this is with regard to coastal access provided under the Marine and Coastal Access Act 2009. This gives responsibility to Natural England/Welsh Government (WG) to designate a continuous national route around the coast of England and Wales. If decommissioning will affect this designated route, then Natural England/WAG will need to be engaged.

Further guidance on rights of way is provided in 'Rights of Way: A Guide to Law & Practice' (Riddall and others, 2007). This is supported by supplementary and updated information available online at: Ramblers.org.uk (accessed: 6 February 2019).

4.5.8 Waste disposal and exemptions

Landowners who take on work previously done by an RMA via an asset transfer must comply with waste legislation.

Some maintenance work can produce waste, such as dredged materials and rubbish from removing blockages. Waste is categorised as hazardous or non-hazardous. Typical non-hazardous materials include trees, vegetation, shopping trolleys, mattresses and building masonry. Typical hazardous materials include white goods, vehicles, chemical drums, car batteries and asbestos sheets.

Landowners will usually need an environmental permit from the Environment Agency/NRW to recover or dispose of waste, but some waste activities are exempt, provided they are registered with the Environment Agency/NRW. Examples can include:

- depositing small volumes of uncontaminated material along the banks of a river/channel at the point where the dredging takes place
- spreading cut vegetation and plant matter at the place of production

Further reading: more information about waste exemptions, types of waste, moving waste, and responsibilities is available online at register, renew or change waste exemptions (accessed: 9 October 2024).

5 Asset information

This chapter sets out the requirements for defining the assets being considered for transfer or decommissioning, including understanding asset system boundaries, asset function(s) and the primary information that the current operator will need to provide. It includes requirements in relation to understanding flood and coastal erosion risks and issues associated with transferring or decommissioning assets, and health and safety considerations.

5.1 Asset definition

5.1.1 Asset type

There are many different flood and coastal erosion risk management (FCERM) asset types in England and Wales. Figure 5.1 shows a gabion wall, a pumping station, a sluice gate, and a bridge with sluices. This report applies to all assets types.

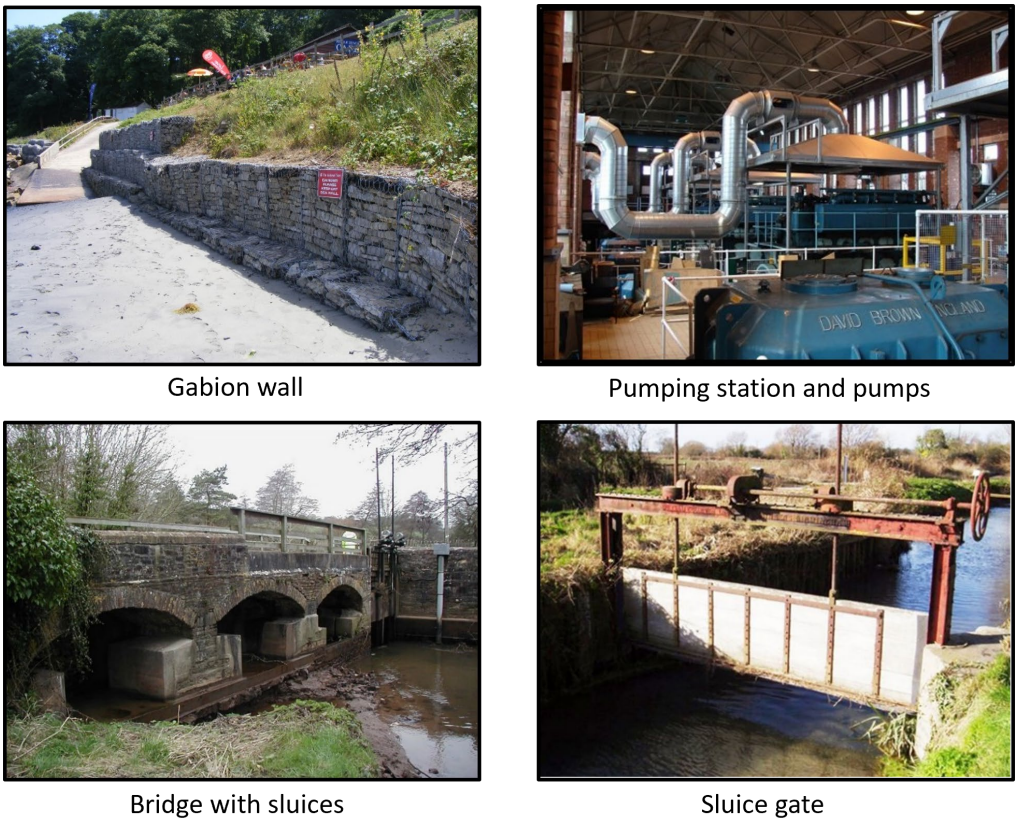


Figure 5.1: Images of example defence asset types that may be considered for asset transfer or decommissioning

In Figure 5.1 there are 4 types of FCERM assets: a gabion wall at the toe of an embankment, a pumping station, a three arch stone road bridge with sluices, and a metal sluice gate set at open across the river.

This report focuses on the general requirements, rather than providing explicit information for each individual type of system and asset.

Further reading: sources to help identify asset(s) types and deterioration:

- Environment Agency (2013a). CAMC (AIMS) Asset Terminology Guide – Document Number 218_12, Version 2. February 2013
- Environment Agency (2018c). Impact of Climate Change on Asset Deterioration
- Environment Agency (2013c). Practical guidance on determining asset deterioration and the use of condition grade deterioration curves: Revision 1
- Environment Agency (2014a). Protocol for the maintenance of flood and coastal risk management assets (England only). January 2014
- ICE (2008). Demolition Protocol

(to note: this is not an exhaustive list of further reading - other information may be applicable for specific asset types/situations).

5.1.2 Asset function

Alongside understanding details of the asset type, it is essential to understand the following before considering asset transfer or decommissioning:

- the function(s) the assets being considered were built for
- the functions/services (FCERM and/or other) the assets currently provide (including, in the case of some telemetry systems, the use of the data provided by that system; for example, other organisations may rely on flood warnings informed by particular telemetry systems for their own operational purposes)
- the future risks after a change of management approach (particularly relevant for decommissioning)

5.1.3 Asset system boundaries

Asset system boundaries need to be clearly defined so they capture the extent of the area that could be affected by any change in the management approach. This includes major issues such as:

- types of land use and assets potentially affected, including agricultural land
- location and size of areas at risk
- economic factors, including amenity, agricultural land and infrastructure values
- environmental factors, including potential implications for habitat change

It may be necessary to extend boundaries beyond the asset footprint, or area it directly serves, to adequately cover the potential impact on the wider system. For example, in a coastal setting, it may be necessary to consider impacts on the wider coastal processes system, including sources of sediment or downdrift effects.

5.2 Information to be provided

The asset location and type will dictate the information and data required to assess the transfer and/or decommissioning options. Each type of asset or system can be transferred or decommissioned in different ways, which can require different data to inform option assessments.

Some general principles to define (and understand) an asset are listed below:

- data will need to be collected to better understand how different assets work together as a system. Available historical condition data, severe event data and other related information can help produce more reliable predictions
- asset system boundaries should be understood and defined in order to help identify the information needed
- the current asset operator and landowner(s)/occupier(s) must be identified
- site-specific information, for example, access routes and operational constraints, should be obtained from engagement with stakeholders and reliable sources such as operating authorities, operational personnel and government
- health, safety and welfare principles need to be in line with broader regulations (for example, Construction (Design & Management) Regulations (CDM 2015)). Production of a health and safety file containing relevant health and safety information, to be used during the process of transfer or decommissioning may be required

Time and costs to collect specific asset information might vary greatly between circumstances, and effort expended should be proportionate to the needs at each stage of the process.

Example: Sourcing asset information - the lessons learnt workshop for the pilot 'Rationalising the Main River Network' projects, hosted by the Environment Agency in March 2019, highlighted that defining the asset(s) can be greatly helped by:

- engaging stakeholders with practical knowledge of asset history and operation. This can be staff within, and local experts/landowners/occupiers outside, the current operator organisation. This expertise could usefully be engaged by having them join a walkover inspection. It can also help in identifying landowners
- referring to Regional Flood & Coastal, Flood Defence, and Land Drainage Committee reports, which can be a useful source of historical information to inform the process
- carrying out an early walkover inspection of all assets to be considered

5.2.1 Asset transfer

When a decision to 'do something different' from the current management approach is made and asset transfer is selected, the new operator(s) has the opportunity to choose if they wish to continue the type of maintenance work previously carried out by the previous

operator, or to implement asset maintenance in a different way (subject to competence, resources, appropriate consents and approvals). To help new operator(s) make these decisions, the process of asset transfer should include providing available information held by the current operator.

Important to note: following asset transfer, the operator transferring the asset should consider retaining copies of the information handed over to record their former ownership, in line with the operators' data archiving policies.

5.2.1.1 Check list of information to be provided for asset transfer

The following checklist sets out information that might be provided if available. This list is not intended to be exhaustive and may vary depending on asset type and operator. Information may be subject to negotiations as part of agreeing the legal transfer of an asset(s) - see also Chapter 4.

- asset details: structure and purpose, including basic details of the asset, photos of the asset, why the structure is there and why it is being transferred
- location map and asset system boundaries, including National Grid references (NGR) at certain points
- original design data if available
- historical works schedule
- as-built drawings/records and any health and safety file under the CDM Regulations
- maintenance records
- running costs, maintenance costs, expected future maintenance costs, transfer costs and valuation of asset
- the current condition of the asset to be transferred, and its estimated residual life
- protocols for operation and maintenance activities, including maintenance manuals, operational guides and plans
- previous asset inspection records (for example, CCTV surveys, asbestos register details)

Regulation and landownership details

- the landowner, including Land Registry title number and details of any tenancy arrangements
- outstanding contractual issues relating to the asset (if any)
- leases, subordinate interests or other agreements (if any)
- restrictions on the property interests (for example, restrictive covenants)
- known access issues/restrictions or landowner issues
- any other relevant information and/or legal documents
- legal agreements on future governance, obligations and health and safety
- current position on eel passage (if applicable) for the asset and local contact details for more information
- impact of the asset on fish passage (if applicable) and local contact details for more information

- any relevant information on the site, for example, designated sites or environmental features of an asset (for example, fish passes), and any responsibilities these may place on the asset operator
- any regulatory consents held in relation to the asset
- any previous planning permission/applications or other applications for consents (for example, Natural England's Assent under Section 28I of the Wildlife and Countryside Act 1981, Environmental Impact Assessment Register)

FCERM and other details include:

- models and data (for example, relevant models or data, provision to transfer the models and data accordingly)
- strategic plans (for example, link to any strategic plans that are relevant to managing this asset)
- pre-construction information, for example, soils investigation, topographical survey, and technical drawings
- utility information associated with operation of the site (for example, electricity bills, telemetry bills)
- emergency meeting points and location plan of utilities on site
- environmental good practice guidance and best practice management guidance
- protected species information (for example, ecology reports, priority habitat maps, non-native species, wild trout trust reports)

5.2.2 Asset decommissioning

In a case of asset decommissioning, the current operator will firstly need to define the works that are being decommissioned in order to predict its characteristics if it is abandoned or demolished. Providing information will be largely to support engagement with stakeholders and potentially affected parties. This is required to understand the rationale and evidence behind the decision to decommission as part of well-planned stakeholder engagement. It is not with a view to handing over information as part of an asset transfer.

Some of the information listed in section 5.2.1.1 relating to asset transfer situations will be of use in these cases too. When decommissioning an asset, the current operator will usually need to provide the following information as a minimum:

- sufficient information to identify the asset to be decommissioned
- summary of rationale for decommissioning (including assessment of flood/coastal erosion risk, and the economic, environmental and social implications of doing so, including impacts on other non-FCERM uses supported by the asset)
- timing (when the asset is to be decommissioned – this links to assessment of flood/coastal erosion risk in point 2)
- detail of process by which decommissioning will be achieved (for example, active removal of asset by full or partial demolition, or just allowing degradation over time following abandonment)

5.3 Assessments to be carried out

In the process of transferring or decommissioning an asset(s), a range of assessments may be required to understand and inform the decision.

5.3.1 FCERM considerations

The transfer or decommissioning of any asset has the potential to change the intended functioning, for example, altering the level of flood risk to an area. Assessment may therefore be required to determine the extent of implications (if any).

In some cases, it will be necessary to determine the current and future risk of flooding/coastal erosion should the asset(s) be maintained to different standards under asset transfer scenarios or fail/be removed under different asset decommissioning scenarios (as was the case with case studies 1 and 2 in Chapter). Depending on the anticipated impact and risk zone, this might be obtainable from previous examination (see 5.2.1.1), or it may be necessary to carry out a flood/coastal erosion risk assessment to understand:

- how the proposed change affects flood/coastal erosion risk, both for present day and in future (potentially also allowing for the impacts of climate change)
- whether that change is appropriate for the proposed location
- whether the site's flood/coastal erosion risk is too great for the change
- whether the proposed change will increase flood/coastal erosion risk elsewhere
- the need for additional resistance and resilience (including adaptation) where necessary

It may also be appropriate to assess the risks associated with the different methods of implementing the decommissioning of an asset or system of assets (for example, remove in one go, or remove in stages over a period of time, as was done in case study 1 – Happisburgh, Norfolk).

Example: sources of information for FCERM assessment include:

- shoreline management plans or catchment flood management plans and strategies, including data used in describing the problem and policy proposed
- high-level and strategic plans (for example, river basin management plans, water level management plans and surface water management plans): used in developing policies, assessing impacts, or making recommendations and management plans and operations
- records of previous floods and historical erosion rates: previous events, causes, consequences and trends
- management activities and practices: previous interventions (if any), including maintenance, monitoring, role of natural processes and flood warning

- physical processes: coastal processes, river processes, drainage/sewer network transmission, natural processes, models developed in previous studies, trends, considering how these may support technical development
- social and environmental data: information relating to all environmental receptors (carried out as part of previous environmental assessment processes)

5.3.2 Future change

5.3.2.1 Asset deterioration

Knowledge about the rate of deterioration for an asset should be communicated in an asset transfer situation so that the new operator is aware of any works or cost implications connected to the asset deterioration.

Establishing asset deterioration is a complex topic and significant deficiencies in available data and knowledge to understand deterioration for most FCERM assets is acknowledged. Without several years of data collection and further research this situation will not change significantly, although tools are available to make broad estimates. Until the knowledge base improves, it is recommended that the publication, ‘Practical guidance on determining asset deterioration and the use of condition grade deterioration curves: Revision 1’ (Environment Agency, 2013c), is used. This gives a standardised approach to assessing and quantifying asset deterioration of flood and coastal defence assets based on the progression of assets through a number of condition grade states.

When considering asset decommissioning options, considering future asset deterioration will inform the possibility and nature of future failure. This analysis can be used to help select the preferred approach to asset transfer or decommissioning, and should follow accepted health, safety and welfare principles. This is particularly important to understand in the context of decommissioning, which involves abandoning/withdrawing maintenance, as the deterioration of assets could lead to sudden, catastrophic failure with resulting risks of physical danger, flooding or erosion.

5.3.2.2 Climate change

It is likely that climate change will be a driver for change (not just a consideration) as part of the asset transfer or decommissioning process. Over the last decade, many documents have considered how climate change will impact existing FCERM asset performance, and its impact on maintenance frequency and costs.

Depending on the nature of the asset, the nature of the area being served by it, and the expected longevity of it continuing to perform, asset transfer or decommissioning may require consideration of climate change effects. In these circumstances, it may be necessary to assess various climate change scenarios to fully understand the potential risks and implications over time of any options being proposed.

Further reading: in March 2023, user groups released projections under the UKCP Development and Knowledge Sharing network. The network helps to inform future

developments in the Defra-funded UKCP Climate Services project - see the article on 17 November 2021 on the Project News page.

Further reading: the UKCP Development and Knowledge Sharing network were a follow on to the 2018 guidance, which considered the climate change factors to consider when assessing future FCERM approaches. This was provided by the UK Climate Projections and is available online at: http://www.metoffice.gov.uk/research/collaboration/ukcp (Accessed 3 July 2023).

5.3.3 Health, safety and welfare

Health, safety and welfare is one of the main aspects to consider when the decision to decommission or transfer an asset is made. It takes different forms, depending on the project context and selected option. For example:

- when demolition of an asset is involved, there is a need to ensure a safe method of working for those removing the asset and associated debris (for example, in Case study 5 – Ramsbury, Wiltshire in Chapter)
- when the defences decay and eventually fail as a consequence of abandonment (stopping maintenance), this could lead to residual public health and safety issues that need addressing (it will usually be the responsibility of the 'occupier' to address such issues – see Overview of riparian ownership and the possible responsibilities of riparian owners in section 4.3.4)
- maintenance may be dangerous or became dangerous in the future - this needs to be carefully considered, particularly if a change in maintenance approach is considered by a new operator as part of an asset transfer

As a general rule, under current regulations (CDM 2015), those involved in a project must have the skills, knowledge and experience necessary to fulfil the roles that they are appointed to carry out, in a way that secures the health and safety of any person affected by the project; this includes the client, designer and contractor. Information to allow the likely risks to be identified and addressed by those carrying out the work should be collected at an early stage. The required level of detail should be proportionate to the risks, which may include:

- a description of the work carried out
- potential hazards on site (for example, asbestos or contaminated land)
- main structural principles and safe working conditions (for example, sources of substantial stored energy, use of personal protective equipment (PPE))
- hazardous materials used
- information regarding the removal or dismantling of structural elements and equipment (for example, any special arrangements necessary for lifting structural elements)
- the nature, location and markings of services (for example, underground cables, gas supply)

- review of any health and safety related information and as-built drawings of the building

Important to note: it is important to recognise that many assets that will be considered for transfer or decommissioning may well have been constructed prior to current regulatory requirements. As such, not all (if any) of this type of information may be readily available.

5.3.3.1 Hazard assessment

The Environment Agency (2009) identifies 5 stages to risk assessment:

1. Identifying the hazards.
2. Considering who might be harmed and how.
3. Evaluating the risk and decide on your precautions.
4. Recording your findings and your proposed actions and then implementing them.
5. Reviewing the hazard assessment and updating as necessary.

Although there is a lack of statistical accident data on FCERM assets, some of the main sources of hazards typically derive from (Thomas Telford, 2005):

- the uncertain forcing conditions (wind, waves, currents, water levels, rainfall, river flows, bed changes)
- the physical dynamic environment (impacts due to the above)
- the users of the environment (the lack of containment of the site)
- the selection and use of equipment in these environments
- impact on the operators (inadequate welfare provisions)

These hazards should be considered alongside other relevant risk factors as part of preparing a safe work method for asset maintenance (of a transferred asset) or decommissioning (removing) an asset.

Managing the hazard may take various forms specific to the situation. Removing an asset in stages or sections could be beneficial in terms of reducing health and safety hazards, both to those carrying out asset decommissioning and more widely the general public in terms of residual public safety risks. This can result in the decommissioning process being better received by local communities.

Example: managing public safety risks from Network Rail

Network Rail operates a coastal defence on the south-east coast near Folkestone. This asset carries a public footpath for the majority of its length. A series of signs are erected on posts along the length of the asset warning variously of falling rocks from the chalk cliffs on one side and slippery rocks (rock armour) on the other. Older signs have multi-lingual warnings and newer signs also have icon type warnings. Buoyancy aids are provided as well.

During a walkover inspection with a local Health and Safety Executive (HSE) inspector in 2018, the protection of the public (and others) was discussed. It was agreed that the signs

were adequate warning, and further measures like handrails were inappropriate as they would suffer storm and chalk fall damage too often.

The asset is formally examined annually and any damage, including to signs or buoyancy aids, is repaired/replaced reactively. From time to time, defects and damage are reported by interested parties, including the local authority responsible for the footpath, and these are addressed reactively as well.

5.3.4 Additional information

The further reading box below provides a list of additional references that can be used to help identify current flood and coastal erosion risk management strategies, climate change impacts, adaptation measures and health and safety aspects. Note that this is not an exhaustive list and other information may be applicable for specific asset types/situations.

Further reading: sources of information/guidance for planning and implementing asset transfer or decommissioning:

- CDM (2015). The Construction (Design and Management) Regulations 2015.
- Committee on Climate Change (2017). UK Climate Change Risk Assessment 2017 Defra/HM Treasury (2009). Accounting for the Effects of Climate Change: Supplementary Green Book Guidance.
- Defra (2011b). Guidance for risk management authorities on sustainable development in relation to their flood and coastal erosion risk management functions. October 2011.
- Environment Agency (2009). Guide to Public Safety on Flood and Coastal Risk Management Sites.
- Environment Agency (2011a). National Flood and Coastal Erosion Risk Management Strategy for England. September 2011.
- Environment Agency (2018d). Guidance: Owning a watercourse. February 2018.
- Halcrow (2015). Coastal Change Adaptation Planning Guidance. East Riding of Yorkshire Council.

6 Environment and sustainability factors

Environment and sustainability factors can promote ‘doing something different’ or can be one of the main factors in supporting and selecting a specific option. For example, one reason may be to maintain, enhance and restore areas of habitat (existing and new), it may be necessary to decommission assets as opposed to transferring them. This is especially relevant in protected areas such as Site of Special Scientific Interest (SSSIs) and Special Area of Conservation (SACs) (for example, managed realignments at the coast, or removing weirs from rivers), and aligns to the ‘net gain’ principle set out in the 25-year environment plan (HM Government, 2018). In addition, options can often be driven by strategic plans/policies. Transfer or decommissioning of some assets may be required in order to fulfil FCERM objectives in a wider system context, or may be required to provide long-term sustainable management of flood and coastal erosion risks (for example, adapting to coastal change, see Case study 1 – Happisburgh, Norfolk in Chapter). This may also be required to fulfil objectives of legislation, such as WFD objectives set out in river basin management plans (RBMPs)

This chapter outlines some of the requirements to help operators identify main environment and sustainability issues (and opportunities) when transferring or decommissioning assets.

6.1 Principles

The transfer or decommissioning of an asset should take into account sustainable development in the context of FCERM and in relation to any specific objectives for sustainability applicable to individual RMAs (Defra, 2011b).

The following statutory guidance on sustainable development objectives applicable to RMAs must be considered:

- for English IDBs, local authorities and highway authorities - Guidance for RMAs on sustainable development in relation to their FCERM functions
- for Welsh IDBs, local authorities and highway authorities - Sustainable development: Guidance to RMAs
- for the Environment Agency, Ministerial guidance issued to it under section 4 of the Environment Act 1995
- for Natural Resources Wales, guidance issued by Welsh Ministers under Article 5 of the Natural Resources Body for Wales (Establishment) Order 2012

6.2 Considerations

When transferring or decommissioning an asset, the following should be considered:

- whether the assets are required to protect nationally or internationally designated environmental features - if this is the case, then it may be necessary to consider

asset transfer, or some other course of action not dealt with in this report, to identify a sustainable future management approach
- the potential nature, scale and impact of the proposal (including, whether the proposal amounts to a ‘project’ for which environmental impact assessment (EIA) is required)
- the need for compliance with, and to meet the objectives of, important pieces of legislation (national and international) to protect, conserve or enhance the environment (see section 4.3.5 above) - activities affecting the environment and required environmental permits should be identified

In carrying out the above, data and information should be obtained and assessed so that:

- environmental constraints and opportunities can be identified (for example, special designated area, seasonal constraints on surveys, historical/cultural and social value of the site)
- potential risks and mitigations can be identified (with a risk register which should be kept under review as the project develops)

Important in achieving the above is to identify the leading stakeholders (refer to section 8.2 Stakeholders) and local authorities responsible for safeguarding the specific site and carry out early consultation to discuss important environment and sustainability issues and collect preliminary feedback.

6.3 Environmental impact assessment (EIA)

When proposing a change of management approach as part of ‘doing something different’, environmental impacts can result, for example, in changing water flows and/or storage, increasing groundwater recharge or increased erosion. Depending on the nature of the decision to ‘do something different’, the impacts and the potential scale of any ‘project’, there might be a requirement to develop an environmental impact assessment (EIA).

In this case, the EIA should identify its boundaries, which should not be confused with the project boundary, and may vary according to the zone of impact and requirements of different receptors.

6.4 Environment and sustainability legislation

The EIA, if required, should consider relevant statutory obligations, including those set out in section 4.3.5 above. Section 4.4.4 also provides a list of references that can be used to identify environmental and sustainability legislation that may need to be complied with when asset transfer and decommissioning is being considered.

Further reading: sources of environmental and sustainability information (please note: this is not an exhaustive list and other information may be applicable for specific asset types/situations).

Environmental:

- The Environmental Permitting (England and Wales) Regulations 2016. Environmental Protection, England and Wales
- Environment Agency (2017). Working with natural processes to reduce flood risk
- Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the '2017 Regulations')
- Department for Communities and Local Government (2014a). National Planning Policy for Waste'
- Marine and Coastal Access Act 2009
- Historic England. Consent and Planning Permission Requirements
- Natural England. Planning and development. Protected sites and species
- The Conservation of Habitats and Species Regulations 2017 (for Habitat Regulations Assessments, HRA)

Sustainability:

- Defra (2011b). Guidance for certain English risk management authorities on sustainable development in relation to their flood and coastal erosion risk management functions
- Well-being of Future Generations Act (Wales) 2015. See Part B 'improving well-being', section 2 'sustainable development'
- Other:
- Defra (2005). Policy Guidance. Coastal Squeeze – Implications for Flood Management. The Requirements of the European Birds and Habitats Directives
- Managed realignment guidance (see section 2.3.1)
- Flood and Water Management Act 2010

6.5 Summary

The list below provides a summary of some of the environmental legislative and regulatory factors to be considered. This should be read together with the information provided in both sections 4.3 and 4.4.

6.5.1 Environmental assessment

environmental impact assessment where the decision to 'do something different' amounts to a 'project' that may cause significant change, for example, with regard to coastal squeeze and managed realignment

6.5.2 Waste

environmental permit from Environment Agency/Natural Resources Wales

marine licence from the Marine Management Organisation / Natural Resources Wales

6.5.3 Water

Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Marine and Coastal Access Act 2009

6.5.4 Archaeology/historic environment

Ancient Monuments and Archaeological Areas Act 1979

Planning (Listed Buildings & Conservation Areas) Act 1990

6.5.5 Designated structures and features

Flood and Water Management Act 2010

6.5.6 Protected wildlife sites and species

- General requirements - Natural England/Natural Resources Wales
- Wildlife and Countryside Act 1981
- Protection of Badgers Act 1992
- Conservation of Habitats and Species Regulations 2017

6.5.7 Other site-specific legislation or requirements

This could include, but not be limited to, identifying any other:

- site-specific or asset-specific legislation to comply with (for example, byelaws; Reservoirs Act 1975; Coast Protection Act 1949)
- site-specific or asset-specific policies/strategies (for example, designated site management plans/management schemes; high-level stewardship agreements; water level management plans)

As part of the implementation of the preferred solution in Stage 3 of the process, ongoing monitoring to assess impacts may need to be carried out, particularly in the case of asset decommissioning

7 Finance and funding

Asset decommission or transfer presents a challenge with the current value-for-money approach to funding as it assumes not decommissioning is an option. However, all assets will require decommissioning (or will, in the worst case, decommission themselves in the form of asset failure). Therefore, any new or refurbished asset must include decommission in its whole-life plan.

Financial and funding elements to be considered when exploring options for asset transfer or asset decommissioning include:

- some form of economic and/or financial assessment of different transfer and decommissioning options
- financial settlement and/or future funding arrangements for transferred assets
- funding of asset decommissioning activities, including funding to enable any opportunities presented by decommissioning, such as natural capital benefits

In addition, estimating the resourcing cost of transfer or decommissioning for budgeting purposes is important as this can be a considerable amount. This is discussed separately in Chapter 3.

This Chapter sets out information on finance/funding to be considered to facilitate asset transfer or decommissioning.

7.1 Financial and economic assessment of asset transfer and decommissioning options

Depending on the individual circumstances, some form of economic and/or financial assessment of asset transfer or decommissioning options may be required. This will help:

- establish the costs and benefits, including environmental costs and benefits of various options
- establish a budget for future expenditure
- illustrate the case for ‘doing something different’ for the asset(s) in question
- demonstrate the justification for the new arrangement and funding for it

While there is a lack of guidance on how to carry out an economic assessment specifically for asset transfer or asset decommissioning, a range of guidance exists on how to carry out economic assessments for FCERM projects. However, as noted previously, there are inherent challenges with the typical approach to FCRM projects for decommission as it assumes that no decommissioning is an option. The assessment principles can be helpful and guidance, such as that under ‘further information’ on the next page, should be reviewed. However, an alternative form of assessment may be appropriate in order to satisfy the requirements of:

- the future asset operator, particularly for asset transfer

- other potential funders to support post-transfer or decommissioning opportunities (see also section 7.4 Funding sources)

For example, some funders may wish to have an economic case made on the basis of:

- benefit-cost ratio, return on capital invested, net present value or payback period
- viewing the benefits from a different perspective (perhaps local or regional rather than national)
- valuing benefits such as future growth in local tourism (rather than just the avoidance of flood or coastal erosion damages)

Further information: sources of information and guidance on carrying out economic assessments for FCERM assets

- Defra/Environment Agency (2012). Principles for implementing flood and coastal resilience funding partnerships
- Defra/Environment Agency (2010). The Appraisal of Adaptation Options in Flood and Coastal Erosion Risk Management
- HM Treasury (2018). The Green Book: Central Government Guidance on Appraisal and Evaluation
- Defra/HM Treasury (2009). Accounting for the Effects of Climate Change: Supplementary Green Book Guidance
- EFTEC (2010). Flood and Coastal Erosion Risk Management: Economic Valuation of Environmental Effects – Handbook for the Environment Agency. March 2010
- Environment Agency (2010). Flood and Coastal Erosion Risk Management Appraisal Guidance (FCERM-AG)
- Environment Agency (2014c). Flood and Coastal Erosion Resilience Partnership Funding Evaluation. April 2014
- Flood Hazard Research Centre (2013). Flood and Coastal Erosion Risk Management: A Manual for Economic Appraisal
- Frontier Economics (2014). Flood and Coastal Erosion Risk Management and the Local Economy: Toolkit
- Halcrow (2012). Partnership Funding and Collaborative Delivery of Local Flood Risk Management: A Practical Resource for LLFAs

When detailed assessment of asset transfer or asset decommissioning options is being made, an economic assessment and/or financial modelling of the options could usefully consider:

- the whole-life costs of continuing the current management approach (maintenance, future capital replacement costs and/or cost of decommission now) compared to the costs of ‘doing something different’ options
- the whole-life benefits provided by the opportunities presented by ‘doing something different’ options

Whilst current maintenance costs are a factor in the cost-benefit assessment, it can also be counter-productive if decommission or asset transfer is the only option. Therefore, comparing the cost of decommissioning now versus decommissioning in the future is a better model. In other words, the assessment is about when to decommission not whether to decommission. This will highlight the relative scale of savings, factoring in ongoing maintenance, inflation and so on, by decommissioning an asset as soon as practicable.

Such a robust approach may not always be necessary or appropriate due to the scale involved. In these cases, a simpler demonstration of relative cost-effectiveness may be appropriate (see the Environment Agency's in-house tool that was developed to align to the Flood and Coastal Erosion Risk Management: A Manual for Economic Appraisal (Flood Hazard Research Centre, 2013)).

7.1.1 Example of factors considered by the Environment Agency when considering asset transfer or decommissioning

7.1.1.1 Timescales

Intervention years refers to the year of transfer or decommissioning and allows funding to be allocated to the project in the right year. This also allows the efficiencies created by asset transfer or decommissioning to be calculated.

Forecast year of failure allows the total efficiencies to the end of the asset life to be calculated.

7.1.1.2 Costs

Refurbishment costs refer to the expected refurbishment cost at the date of failure and allows the capital efficiencies created by avoiding a refurbishment project to be calculated.

Maintenance costs are the annual maintenance costs to maintain at target condition (excluding intermittent costs). These are fundamental to the business case for asset transfer or decommissioning.

Decommissioning costs are the estimated decommission costs that allow the size of the project to be assessed.

7.1.1.3 Benefits

Transfer benefits are the asset sale value (estimated income if asset/land is to be sold). If selling an asset (or the land it is on), this brings money into the business, which can support the business case for decommissioning.

Housing benefits are the estimated standard of protection (SOP) with the asset in place/with maintenance. These are necessary to determine if the asset is economical. The number of residential properties benefiting from the asset or maintenance is necessary to determine if the asset is economical.

Commercial and agricultural benefits can refer to the estimated commercial floor space area benefiting from the asset or maintenance (m^2), the estimated agricultural land area benefiting from asset SOP (ha), type of agricultural land (if applicable), or an estimate of current drainage condition (if applicable). If there are such benefits, they can be included to get a better idea of whether or not the asset is economical. Benefits are calculated using formulae from the Flood and Coastal Erosion Risk Management: A Manual for Economic Appraisal (Flood Hazard Research Centre, 2013).

7.2 Financial aspects of asset transfer and decommissioning

Section 2.1 introduced the principal options available for transfer and decommissioning:

- transfer: handover or sale
- decommissioning: demolition or abandonment

The financial considerations of these 2 options are clearly different, with transfer involving the passing of operation from one party to another, and decommissioning involving the withdrawal of the previous operator. They are discussed below.

It is important to note that, for any option considered, this is a revenue funded activity as set out in the Globally Accepted Accounting Principles (GAAP). Decommission can only be capitalised if it is a component of construction e.g. where an asset is being replaced.

7.2.1 Asset transfer

Where asset transfer involves the current operator ceasing to exercise a permissive power, no financial compensation or settlement is likely to be required (see Chapter 4 Legal and regulatory framework).

Where assets other than land are being transferred from a current (public) operator to a new (public) operator, Treasury guidance and practice on transfer schemes (HM Treasury, 2018) states that this is simply a book transfer from the current authority to the new authority when an asset is transferred. The asset is transferred in whatever condition it is in; there is no payment alongside and there is no work to be done on the asset. Land transfers between 2 public bodies should take place based on market values (see example highlighted below).

In situations involving asset transfer between a current (public) operator and a new (non-public) operator there may be some form of financial settlement involved. This will form part of the negotiation between current operator and potential new operator, and will need to consider:

- the market value of the asset
- agreement of any costs to be incurred by the current operator to get the asset to a standard acceptable to the new operator

- agreement of any commuted sum or other financial settlement (see Chapter 4 Legal and regulatory framework)
- potential adjustments to precept levels (see below)

Example: The lessons learnt workshop for the pilot 'Rationalising the Main River Network' projects, hosted by the Environment Agency in March 2019, highlighted that if asset transfer includes land transfer between 2 public bodies, then current HM Treasury rules state that this has to be done as a commercial transaction based on market land values. This can form a financial block to completing such transfers.

Some of these pilot projects placed covenants on land needed for flood risk management in order to ensure that it could continue to function. This (correctly) reduced the appeal of the land and therefore its market value, making the transfer more affordable.

In identifying land needed for flood risk management, some parcels of land were identified as not being needed for this purpose and so could be sold off at commercial rates to others, generating income for the Environment Agency. This income could, potentially, be used to invest in other assets to get them to a standard where a new operator such as an internal drainage board (IDB) would be willing to take them on. This was not done in the pilots as the money raised from sales had to go back into a national pot rather than be re-allocated locally.

Where the current operator has a legal duty to maintain an asset that is no longer beneficial to the current operator, consideration may be given to transferring the liability for the asset by agreement to a third party who may be able to provide maintenance at lower costs (see section 4.2.1 Who to transfer an asset to?). In these cases, the current operator would pay maintenance costs to the third party for an agreed period. An alternative arrangement in these situations is to consider if third parties are willing/able to provide funding contributions to the current operator to continue maintenance of the (otherwise) uneconomic asset. Both options may form part of a transitional arrangement from the current to new management approach (see also section 4.2.5 Asset transfer arrangements).

Asset transfer can involve more than one landowner, so the future integrity of the asset(s) may depend on 'all' of the owners contributing in some financial way. This includes a situation where a landowner who is willing to maintain an asset for their own benefit can consider neighbours who also benefit and should contribute to the maintenance costs; although this is a matter for the individuals and their legal representatives (Environment Agency, 2014a). See also Chapter 4.

When considering asset transfer, the potential new asset operator(s) need(s) to understand what their future costs could be, which may include:

- costs of future maintenance of all aspects of the asset(s), including public safety and signage
- costs of future capital replacement of transferred asset

In these circumstances, it may be appropriate for the current operator to provide information on the costs they incur carrying out asset maintenance and/or expect to incur to replace asset(s) in the future. This will provide an indication of the level of funding the future operator could be expected to commit to. This may not be appropriate in all situations, particularly where it is a case of handing an asset over to a riparian owner when a risk management authority (RMA) withdraws maintenance previously provided under permissive powers.

7.2.1.1 Financial settlement as part of an asset transfer

Very little guidance exists on how to calculate a financial settlement sum as part of an asset transfer. There are few examples of where financial settlement has been made, and where they do exist, it involves asset transfer between public bodies and not from a public body to a private body. However, some form of financial settlement could be appropriate in public to private transfer situations where it is not a case of just the current operator ceasing to exercise permissive powers and handing over to the riparian owner. Negotiation on this may need to form part of the legal discussions (see Chapter 4 Legal and regulatory framework).

Example: A recent example of financial settlement is the approach the Environment Agency is using as part of the pilot ‘Rationalising the Main River Network’ projects. In this case, the following formula is being used to calculate the overall asset transfer payment payable to the IDB where it is being asked to take on part of the river network, including various FCERM assets: Total cost of 3 years maintenance of asset(s) (£) + Total estimated cost of removal of asset(s) (£) = Total overall asset transfer payment payable (£).

7.2.1.2 Precepts payments

Current maintenance of an asset(s) may be funded (in part) via precept payments from one RMA to another RMA.

There is no direct correlation between the level of the precept and the cost of maintenance of an asset, or the cost of any work to be carried out in or directly for the benefit of that drainage district. A reduction in precept is not an automatic consequence of asset transfer or decommissioning and cannot be agreed as a pre-condition of asset transfer (or decommissioning). The potential for future adjustments to the precept might be discussed on a ‘without prejudice’ basis in the course of wider discussions relating to asset transfer or decommissioning, but no guarantees can be given that there will be any such change. Any request for reductions in the precept will need to be considered on an individual basis and may form part of the discussions around the financial settlement associated with the transfer or decommissioning of assets.

Example: how precepts work to fund Environment Agency FCERM works

The Environment Agency is required to raise a precept on IDBs each year as a contribution towards its expenses. The Environment Agency sets the value of the precept

annually in consultation with, and obtaining the consent of, the Regional Flood and Coastal Committees (RFCCs); as such, discussion of changes to precepts is only applicable in this case where asset transfer is from the Environment Agency to an IDB.

Setting precepts via this process is not subject to a statutory formula for calculation, however, the level of the precept is required to be 'fair' (section 139(1) Water Resource Act (WRA) 1991), and precept monies must be spent in or for the benefit of the flood risk management region in which they are raised (section 118 WRA 1991).

Any requests for changes in the precept must follow the national process set out by the Environment Agency. These can only take effect at the start of the financial year following approval by the relevant Regional Flood & Coast Committee (RFCC) – there is no potential for in-year changes. If the transfer or decommissioning of an asset(s) leads to an IDB applying for a reduction in precept, and the Environment Agency and RFCC determine (in accordance with the national precept process) that the precept should be reduced, the reduction will take effect at the start of the following year.

7.2.2 Asset decommissioning

Decommissioning may require significant upfront costs, which may need to be borne but the current operator (see case study 1 – Happisburgh, Norfolk and case study 2 – Poole, Dorset). These costs could vary considerably between asset type, extent, and setting.

Where work involves the full or partial demolition of the asset(s) to 'make safe', so reducing residual risks from their abandonment, costs relating to obtaining necessary consents to carry out such works (for example, demolition order from the local planning authority, and waste material disposal costs) also need to be considered.

If abandoning an asset(s) is being assessed as an option for implementing decommissioning, the following points should be considered:

- abandonment might leave a residual risk to people and property, the environment, or some other risk, that could be considered unacceptable - these residual risks need to be accounted for as part of the process of assessing asset decommissioning options and include assessment of the risk from catastrophic failure as a result of abandonment (see also Chapter 5 Asset information)
- the relative risks/costs of abandonment compared to a demolition decommissioning option - in doing so, there is the need to recognise the costs of abandonment - this should include engagement to notify those at risk as a result of the change and the costs of any reasonable measures required to manage the post-abandonment residual risk, for example, public health and safety risks, which may continue to be required for many years into the future
- the potential ongoing costs for the current operator to continue to do inspections and advise landowner(s) of any issues arising as the abandoned asset deteriorates over time - this may be particularly challenging as the reason for abandonment may well be the lack of availability of funding to continue maintenance

Important to note: where asset decommissioning is abandonment in the longer term, it may still be economic to maintain the asset(s) in the short term while it provides flood and coastal erosion risk management (FCERM) benefits that justifies the expenditure. This will also provide a period of time for any affected stakeholders to adapt to the future decommissioned state. If this approach is taken, then it will be necessary to understand the ongoing maintenance costs and how long they can be sustained (what is the threshold above which maintenance will stop?). It needs to be clearly communicated to stakeholders that it is a time-limited approach and that, should a sudden extreme event cause asset failure, the asset will not be replaced.

Important to note: it may be that asset decommissioning is part of a managed realignment scheme. In these situations, financial compensation may be appropriate for those affected by the managed realignment scheme. This should be considered on a case-by-case basis as part of the overall scheme costs.

Note also that in some situations, asset decommissioning may:

- have implications for precepts (see Report Section Precepts payments)
- present opportunities to generate revenue which may be used in lieu of payments (for example, resale of waste materials generated by decommissioning)
- present opportunities to offset some or all of the costs of decommissioning over time by creating natural capital benefits

7.3 Economic benefits of asset transfer or decommissioning

The main potential economic benefits of asset transfer or decommissioning relate to the valuation of wider, non FCERM, opportunities that the asset (or its decommissioning) will provide in the future. There are a range of guidance documents available that operators can use to calculate benefits, such as:

- EFTEC (2010). Flood and Coastal Erosion Risk Management: Economic Valuation of Environmental Effects – Handbook for the Environment Agency. March 2010
- Flood Hazard Research Centre (2013). Flood and Coastal Erosion Risk Management: A Manual for Economic Appraisal
- Frontier Economics (2014). Flood and Coastal Erosion Risk Management and the Local Economy: Toolkit

Example: The lessons learnt workshop for the pilot ‘Rationalising the Main River Network’ projects, hosted by the Environment Agency in March 2019, highlighted that although an asset may be ‘uneconomic’ for the current operator to justify ongoing investment for FCERM reasons, the asset may hold different value for other operators. This is important to understand in order to be able to demonstrate this value to future potential operators and/or funders; for example, show them the benefits of them taking on and maintaining an asset via asset transfer.

7.3.1 Asset transfer specific considerations

In asset transfer situations, a new asset operator may decide to carry out maintenance operations in a different way post transfer. The ability to do so may depend on any conditions placed on them as part of the asset transfer negotiation, including transfer of conditions placed on the current operator to the new operator. Legal advice on these matters will need to be obtained as part of the process (refer also to Chapter 4).

If maintenance operations do change, this may provide an opportunity to bring environmental improvements for habitat or amenity use of an area. That benefit could enable funding to be sought from additional sources and/or be seen as an incentive by some potential new operators to accept an asset transfer. Opportunities such as this should be identified as part of the asset transfer process, enabling the current operator to demonstrate to the new operator the benefits of them taking on the asset(s).

In doing so, the current operator will need to consider if state aid rules are applicable (refer also to Chapter 4).

7.3.2 Asset decommissioning specific considerations

When considering asset decommissioning options, the approach to decommissioning could be influenced by the ability to access funding to pro-actively manage the process (for example, by demolition) to provide the desired habitat (or other) outcomes. These may not otherwise be realised if an asset is simply abandoned and left to degrade and fail, with no control or certainty as to what, where or when habitat may develop.

The approach taken will also be driven by relative costs of each option, but should consider the following potential benefits:

- if asset decommissioning is part of a managed realignment scheme, there is likely to be significant potential that the scheme will also provide a range of new (non-FCERM) benefits such as environmental improvements for wildlife and people. Removal of old defences can make the site more appealing as an amenity as long as the area is safe. It may also be appropriate to identify the potential conservation benefits alongside the costs of the scheme and/or seek funding from Natural England/Natural Resources Wales/Environment Agency who have various schemes for habitat improvement and natural flood management solutions
- if asset operators/landowners do not wish to continue maintaining an existing FCERM asset/asset system, they could apply to Natural England/Natural Resources Wales to see whether agri-environment payments to create floodplain wetland or intertidal habitat are available

7.4 Funding sources

The question of ‘who funds’ is common to both asset transfer and asset decommissioning. This is as well as the need to consider a range of potential funding sources other than flood defence grant in aid (FDGiA). This is especially prudent given that an important

factor for the current asset operator to consider in asset transfer or decommissioning may well be a lack of an economic case to justify this source of funding.

It is important to note that, for any option considered, this is a revenue funded activity as set out in the Globally Accepted Accounting Principles (GAAP) and can only be capitalised where it is a component of construction.

Funding for asset transfer and decommissioning can be challenging and can take time to obtain and secure. It is important to identify potential future funding sources in Stage 1 of the 3-stage process. This allows appropriate economic information to be captured early on to support negotiations with potential funders, who may have evidence/information requirements for decision-making that differ from those for FDGiA. The funders may also have their own guidance on economic appraisal, and this should be taken into account when starting any economic assessment.

Potential funders should be considered when planning stakeholder engagement (see Chapter 8), allowing enough time to engage with them from an early stage to progress funding negotiations in parallel to other activities and minimise any risk of future delays. It is not possible or useful to list all the potential funders in this document: they often have a limited life and they come and go as political and commercial priorities change. The user is strongly advised to consider the likely benefits arising from the transfer or decommissioning, and then to obtain current advice from the local council, the Environment Agency or Natural Resources Wales and, for private funds, the Local Enterprise Partnership.

Important to note: RMAs should comply with the requirements of the Five Case Model, which is the approach for developing business cases recommended by HM Treasury, the Welsh Government and the UK Office of Government Commerce. Further guidance on this is available online at five case model in The Green Book.

For asset transfer, the transferee will need to raise their own operating funds in due course. Their ability to do so will need to be assessed when considering possible transferees.

For asset decommissioning, potential funders may include the current operator’s funding sources, potentially supplemented by funds that exist to support the exploitation of opportunities that may arise. Those include, for example, resale of materials arising from decommissioning, or the creation of new habitat or amenity value (or other ecosystem services).

8 Stakeholder engagement

This chapter provides guiding principles for engagement and communication as part of the process of asset transfer or decommissioning, which will need to be considered in developing a bespoke approach to each situation. Specifically, this chapter sets out:

- how the process of engagement should be planned through the development of a stakeholder engagement plan (SEP) (Section 8.1 Develop a stakeholder engagement plan)
- who should be engaged in the process, 'the stakeholders' (Section 8.2 Stakeholders)
- how the various stakeholders can best be engaged, looking at a range of tools and techniques (Section 8.3 Engagement tools and techniques)
- when engagement should take place and what activities can be considered (Section 8.4 Engagement activities)

Engagement should be planned and implemented from the start of the 3-stage process of considering options for 'doing something different'. It should provide an open and transparent process which builds trust with local communities, landowners, land occupiers (for example, tenants) and stakeholders, and will develop partnership working for the future.

It should be noted that a range of good practice guidance on stakeholder engagement already exists (see guidance on good stakeholder engagement practices below). This report does not therefore seek to replicate this existing guidance, but instead draws on it in the context specific to asset transfer and decommissioning.

Further reading: guidance on good stakeholder engagement practices

The following are some of the main useful additional reports available to operators:

- Environment Agency (2013b). Working with Others: A Guide for Staff
- Defra/Environment Agency (2009). Understanding the Processes for Community Adaptation Planning and Engagement (CAPE) on the Coast
- Living with a Changing Coast (LiCCo) project (2015). Coastal Change Engagement Toolkit: A stage by stage guide
- Corner and others (2015). The Uncertainty Handbook: A Practical Guide for Climate Change Communicators

8.1 Develop a stakeholder engagement plan

For every asset transfer or decommissioning process, a stakeholder engagement plan (SEP) should be developed at the start of Stage 1 and regularly reviewed throughout the process. The SEP will be the main tool for planning, prioritising and reviewing all communications with stakeholders, at every stage. It provides a point of reference for the

project team, to help ensure that all engagement work is carried out in a clear, consistent, prioritised way with a common focus.

8.1.1 SEP preparation and review

The preparation of an initial SEP at the start of Stage 1 provides an opportunity to review whether those responsible for leading the exploration of asset transfer or decommissioning options have the skills required to carry out effective engagement. In some cases, where items are known to be contentious or high profile, it is recommended that an engagement specialist be employed to provide input from the start of the process.

Important to note: The SEP is an opportunity to set out and agree at the outset, and then by frequent review, a tailored and proportionate approach to stakeholder engagement, which fits with the overall scale and complexity of the project. For example:

- on projects where the situation is relatively straightforward and the stakeholders are perhaps limited to asset operators and landowners, the SEP may well be a simple document and the extent of engagement required during the life of the process may be relatively limited and involve very few people/stakeholders
- on more complex projects where the number of interested parties is broader, the SEP will likely need to reflect this in a broader engagement process

The preparation of the SEP should begin at the earliest opportunity. This should be a ‘living document’, evolving over time, which is regularly updated and reviewed, particularly at important decision milestones.

The initial SEP, developed before a preferred option is determined, may look very different to a SEP developed later, once the outcome is clearer, having moved through Stage 2 and into Stage 3. Nevertheless, the SEP is an important document to guide thinking at every stage of the process.

In preparing and maintaining the SEP and the engagement it guides, it is important to acknowledge that more complex situations can take many years to work through to final completion. In these cases, there is a real challenge in keeping effective engagement going given that stakeholders change over time (for example, councils merge, councillors change, residents move in/out of the area). To overcome these challenges, the SEP (and lead organisation(s)) need(s) to recognise the resource commitment it requires.

The SEP should set out clear processes for recording all engagement activities, including how comments from stakeholders have been handled and informed the decision-making. This is particularly important where challenges have been raised through the engagement or could be raised in the future.

Important to note: Review previous stakeholder involvement - the decision to ‘do something different’ from the current management approach may have already considered stakeholder views (for example, asset owners and operators). At the start of the process, it

is important to understand the nature of this prior engagement, and to review any previous SEP.

Once the decision to proceed with either asset transfer or asset decommissioning has been determined at the end of Stage 1, engagement can become more focused and formalised. At the start of Stage 2, the SEP should be revisited and updated so that it can guide the detailed assessment appropriately in the context of the shortlisted option(s).

Once a preferred option has been identified and a final decision has been taken on the specific solution for the asset in question (at the end of Stage 2), the nature and tone of engagement activities may need to change, and this will need to be reflected in a further update of the SEP for Stage 3.

8.1.2 SEP content

While each SEP should be bespoke for each situation, and may be quite different depending on whether the focus is on asset transfer or asset decommissioning, it will typically follow a common structure. ‘Working with Others’ (Environment Agency, 2013b) provides a useful framework for developing a SEP. In brief, the SEP should set out:

- the business objective (why ‘doing something different’ is required)
- the engagement objective (why others need to be involved in the process: for example, to help build on local knowledge, encourage the problem to be jointly resolved, ensuring everyone understands all the issues and concerns)
- the main messages, including what is negotiable and what scope there is for change (this will determine whether the focus should be on informing, consulting or collaborating)
- the stakeholders
- when in the process stakeholders should be engaged
- what tools and techniques to use

8.1.2.1 Establish business objective

It is important to confirm the business objective(s) of either transferring or decommissioning the asset(s). The objective should link to one of the drivers for change (see section 2.2 Context for considering options) and clarify why ‘doing something different’ from the current approach is required. Setting this out as part of the SEP will help to ensure that the reasons for change can be clearly and consistently communicated to stakeholders and that any engagement is properly framed within this context.

8.1.2.2 Establish engagement objectives

The objectives of engagement will differ at each stage of the process.

Initially during Stage 1, the primary objective will be to gather the knowledge and information to feed into the initial appraisal and help understand the 5 core topics described in Chapters 4 to 8. This will feed into the appraisal/assessment process in Stage 2 and help to ensure that the route that is ultimately selected is fully informed.

Engagement at this stage will be beneficial in terms of starting to inform and raise awareness among wider stakeholders of the benefits and constraints that will need to be considered. In this way, early engagement will begin to build capacity and, in many situations, help to manage expectations. This aspect should also be reflected, as appropriate, in the engagement objectives.

Important to note: Evidence from previous asset transfer and decommissioning projects suggests that early proactive engagement can be hugely beneficial to the overall process. For example, this helps to build understanding among stakeholders about what is required and why, ensuring that the engagement work captures specialist knowledge and is based on a good appreciation of the local context.

The purpose and nature of engagement carried out in Stage 2 will differ from Stage 1. The overall purpose in this stage will be to develop a more detailed understanding of the viability of options and select a preferred route forward. Within this process there is opportunity to step back and reassess, should any aspect of the assessment indicate that the route selected is not viable. The engagement objectives would then need to be updated to reflect the context of the decisions made about the preferred solution.

In most cases, the Stage 3 objectives will be to communicate the decision taken to either decommission or transfer the asset(s). The engagement will cover how that will be done to ensure that the process of implementing this change is as smooth as possible.

The engagement objective should reflect that during Stage 3 any engagement work is likely to lean more towards sharing information with stakeholders rather than collaboration or consultation (other than potentially with the existing owner). This reflects the fact that decisions will have already been made and that there will be little left to determine or negotiate, other than perhaps finer details of the implementation.

8.1.2.3 Main messages

The initial SEP should set out the main messages that will need to be conveyed to stakeholders during Stage 1 engagement. These would usually reference the business and engagement objectives and explain in relatively simple terms, what is being considered, why and how, including:

- important factual information about the asset(s) or site-specific constraints (particularly where these are non-negotiable; for example, due to any specific legal responsibilities)
- clear statements about what can and cannot be influenced by stakeholders through the engagement process

Important to note: Evidence from previous asset transfer and decommissioning projects suggests that it can be useful to frame the messages and any subsequent engagement around the concept of a ‘shared solution’.

It is important to have clear, consistent messages throughout the engagement that accompanies the asset transfer or decommissioning process, both internally in the current

operators' organisation and externally with all other stakeholders, such that all those from the current operators' organisation that have contact with other stakeholders give the consistent information at all times.

Messages need to be open and transparent. It is particularly important to be honest about the decision-making process and the extent to which the process may be amended. Some of the references in Chapter 8 include a range of helpful guidance on how to communicate complex messages. These may be a useful resource when framing the main messages.

In Stage 2, the main messages should explain the range of options being considered as part of the detailed assessment. They should be:

- open and transparent about the options and their pros and cons. It is particularly important to be honest about the decision-making process and the elements of the process that may be influenced
- communicate clearly the nature and uncertainty of potential impacts
- set out the criteria that will be used to judge the options, and how the process of selecting a preferred option will be carried out, who makes the decision and what the time frame is (if known)

The main messages can be further updated to describe the decisions taken at the end of Stage 2 and the reasons for these, as well as the anticipated next stages and timescales for Stage 3.

In the case of both asset transfer and asset decommissioning, the messages should be clear about the anticipated benefits and consequences, including any uncertainty.

When decommissioning assets, it will also be important for the main messages to clearly articulate why an asset is no longer needed.

At this point in the process, more than the previous stages 1 and 2, the main messages are likely to be used to underpin communications with a wider, non-technical audience, so need to be carefully framed in plain English.

8.2 Stakeholders

8.2.1 Initial identification of stakeholders

The initial stakeholder listing should include those stakeholders with an interest in the asset, for example:

- individuals or groups internal to the current operators' organisation who need to be aware of the proposal to 'do something different'
- the current landowner of the asset and any occupiers (for example, tenants)
- any potential future owners or operators of the asset
- potential future funding partners (guided by identifying potential benefits /opportunities that transfer or decommissioning could produce)

- groups or individuals who may be affected (either positively or negatively) by ‘doing something different’, to include any properties or communities in the flood zone
- organisations and bodies with an environmental interest in the site or a responsibility to safeguard it
- groups, organisations or individuals who may have a wider interest in a proposed change. This many include the wider community, businesses, or groups such as residents’ associations, recreational/sports clubs, interest groups, flood groups. It may also include any users of the asset/surrounding area (for example, if land is leased or access rights exist) or groups representing users
- elected local representatives, including MPs or elected members (at county, district or parish council level)
- any other decision makers or regulators relevant to the specific asset. This may include the local authority in their role as local planning authority or other consenting bodies such as the Marine Management Organisation, in addition to others already listed above

Stakeholders previously engaged in plans with respect to current status of the asset should also be included.

The list below details potential stakeholders and stakeholder groups when planning engagement for asset transfer or decommissioning (all 5 case studies in Chapter identify stakeholders that were involved, and so give actual examples):

- MPs
- Local authorities - as lead local flood authority, coast protection authority or as local planning authority
- Local authorities – in relation to their other responsibilities (for example, highways, public rights of way)
- Local elected members/councillors
- Environment Agency
- Regional Flood and Coastal Committee
- Coastal groups
- Natural England
- Historic England
- Natural Resources Wales
- Marine Management Organisation
- Network Rail
- National Trust
- Landowners (riparian landowners and other landowners, which may include Crown Estate)
- Internal drainage board
- Water and sewerage companies
- Utilities operators/owners
- Port/harbour authority
- RNLI

- Farmers (landowner and tenant)
- Parish councils
- Local flood groups
- Umbrella groups representing any of the above for example, Coastal Forums, Coastal and Estuarial Partnerships, National Flood Forum, National Farmers' Union (NFU), Country Land and Business Association (CLA), Association of Drainage Authorities (ADA), Water UK
- User groups (for example, Sustrans or Ramblers)
- Environmental groups, for example, Wildlife Trust, RSPB, Rivers Trust
- Communities
- Businesses
- Other local interest or community groups

Within large stakeholder organisations such as the Environment Agency or other RMAs, there will usually be a need to identify and involve multiple internal stakeholders across various departments or divisions, including a range of individuals in various roles and across all levels (up to and including Director). The list below identifies potential internal stakeholders to consider when planning engagement for exploring asset transfer and decommissioning.

8.2.1.1 Potential internal stakeholder groups within RMAs

Examples of potential internal stakeholder groups within RMAs:

- Engagement and communications
- Engineering
- Asset management/asset performance/maintenance/operations
- Catchment management
- Flood risk/coastal erosion risk
- Legal/enforcement
- Planning
- Countryside/coastal management
- Property/estates
- Environment/landscape
- Biodiversity
- Geomorphology
- Marine environment
- Fisheries
- Corporate strategy or strategic overview
- Highways/public rights of way

8.2.2 Updating the stakeholder list

Once there is a better understanding of the direction being taken at the end of Stage 1, the SEP should be updated to focus on those stakeholders or organisations specifically relevant to/affected by the options and considerations being examined in Stage 2.

The processes of asset transfer and asset decommissioning can be very different and may well involve different stakeholders. A comprehensive stakeholder analysis is important in both situations to ensure that all the main stakeholders are identified and properly understood.

In updating the stakeholder listings for asset transfer options that are being assessed in detail, it will be important to consider the following points

1. Fewer stakeholders may be involved in considering asset transfer options compared to decommissioning options. For example, where there will be no change in the performance or function of a FCERM asset, the core transfer process is likely to focus mainly on the relationship between the transferor and transferee. An example may be the transfer of an asset from the Environment Agency to a water company.
2. In other cases, the transfer process may be a catalyst for encouraging stakeholders to work together to resolve existing issues or make improvements; or for the transferor and transferee to work together to themselves engage wider stakeholders. It is therefore important that, in all cases, the stakeholder analysis is thoroughly thought through as an important first stage in the process and that all potential stakeholders are identified. This will then allow the engagement process to be comprehensively planned in a proportionate way

In updating the stakeholder listings for asset decommissioning options that are being assessed in detail, it will be important to consider:

- that the list of potential stakeholders who are affected by the process, or who may wish to influence the outcome or process, may be much longer and more diverse than where asset transfer options are being considered
- the stakeholder analysis for a decommissioning scheme should include all individuals or organisations likely to be affected by the change, either directly (for example, through physical changes to land) or indirectly through wider impacts or longer-term effects - this may include, for example, parish councils, local communities, local businesses and local interest groups

At the start of Stage 3 the stakeholder list should be reviewed to ensure that it is focused on the selected preferred solution and that the stakeholders who remain relevant in this context are clearly identified. Given that previous stakeholder lists in Stage 1 and Stage 2 covered a number of potential options/scenarios, it is likely that the stakeholder list at this stage can become more targeted, although in doing so, consideration should be given to keeping those previously engaged informed of progress and outcomes.

8.3 Engagement tools and techniques

Engagement with stakeholders throughout asset transfer or decommissioning may involve different types of engagement, at different times, to include:

- informing stakeholders about a change or supporting stakeholders to understand the change

- consulting stakeholders to help inform decision-making about a change
- collaborating with stakeholders to achieve the change
- The extent to which it will be appropriate to inform, consult or collaborate with stakeholders will differ in each situation and will depend on:
- the extent to which elements are fixed or choices limited, either for technical, environmental, legal or financial reasons
- who the stakeholder is and how affected and interested they are, or how much they can affect the outcome

The type of engagement may differ from stakeholder to stakeholder, depending on their role in the process. Collaborative or consultative relationships may be more likely with statutory consultees, other RMAs, and (possibly) other asset owners or parties directly affected by potential changes from asset transfer or decommissioning. The nature of engagement with other stakeholders who may have an interest in the process, including councillors, parish councils, businesses and communities, may typically be based on the sharing of information.

Some aspects of the process may require mandatory consultation with certain stakeholders, for example, if applying for a marine licence or carrying out an environmental impact assessment (EIA) to support implementation of asset decommissioning. The requirement for engagement regarding these aspects should be identified in Stage 1 of the process and developed during Stage 2 and Stage 3.

The extent of engagement required will be determined by a stakeholder analysis and by reviewing the important information that the current operator should have gathered prior to embarking on the process of considering ‘doing something different’ with the asset(s).

8.3.1 Stakeholder analysis

For each stakeholder, a stakeholder analysis will help to understand:

- their likely role/degree of influence/power over the decision on which ‘do something different’ route should be selected
- how the proposal might affect them
- the information or knowledge they may contribute

This will help to identify those stakeholders with whom early engagement in Stage 1 will be most productive and will play a fundamental role in shaping the options/solutions to be explored.

Once a comprehensive list of stakeholders has been drawn up specific to the option(s) being considered (Stage 2), it is possible to build on the initial Stage 1 stakeholder analysis to confirm:

- those stakeholders who are critical to the processes:
- by virtue of their legislative or regulatory function
- as transfer or decommissioning would not be possible without their authorisation

- those stakeholders who are directly affected by the options - the views of these parties are likely to have more weight than others
- through a risk-based approach, the identification of those stakeholders to be prioritised in any engagement work
- for each stakeholder identified, whether they support or oppose the options being considered. This will help to highlight any stakeholders that may require a particularly focused approach, for example, because they may be potential advocates or, in particular, objectors
- those who may be able to provide assistance to highlight the positive aspects of the process – for example, those that can provide funding for agri-environmental schemes

Important to note: A useful element of stakeholder analysis is to identify the most appropriate means of engaging with each stakeholder. This may, for example, include allocating an 'owner' to each stakeholder or stakeholder group, for example, a member of the project team who would be responsible for reaching out to the specific stakeholder.

Important to note: Identifying a preferred method of contact with each stakeholder should be agreed as part of 'first contact'. This should include considering whether each stakeholder is best engaged, for example, by a face-to-face meeting, through an invitation to a workshop, via correspondence, or via ongoing dialogue.

The stakeholder analysis should be revisited at the start of Stage 3 to ensure:

- there is a focus on the main stakeholders who have the final say in any consenting or legal process for the chosen solution
- the current position of each main stakeholder is understood and documented, so that future communications can be carried out in context and address specific items, as appropriate

Important to note: Objections in the process of asset transfer or decommissioning are not uncommon. Where lodged, they can significantly delay the process and have significant cost implications. Therefore, identifying potential objectors early so that strategies to work with these stakeholders can be put into place is important. The tracking of changing opinions is important in following a risk-based approach to engaging with priority stakeholders. The principles of soundness and transparency in the process are discussed from a legal perspective in section 4.1.1. This also states that decisions must be fully supported by appropriate documentation.

8.4 Engagement activities

Engagement activities will vary through the 3 stages of the asset transfer or decommissioning process and, as the engagement objectives, decisions required, and outcomes change.

During the process, particularly in Stage 2, engagement may broaden out to include a wider group of stakeholders (potentially including public consultation), especially if asset decommissioning options are being explored.

As important decisions are intended to be made at the end of Stage 2 of the process, it is likely that Stage 3 would be based more on informing the majority of stakeholders. Collaboration at this point in the process may be restricted to a small number of critical stakeholders necessary for implementing decisions made at Stage 2.

8.4.1 Stage 1 engagement activities

In Stage 1, the engagement activities should help support the process of considering the range of transfer and decommissioning options and establishing what needs to be explored in more detail in Stage 2.

In most cases, the first stage of engagement is likely to focus on building a better understanding of the situation, considering a wide range of options, and identifying solutions which are more likely to be locally acceptable. It is likely to be based on engaging in a collaborative or consultative way, with a relatively small group of stakeholders.

This engagement with stakeholders should gather information to help understand the asset, its function and performance and any site-specific elements (to include flooding, coastal erosion, environment and sustainability). It should consider the range of approaches covering transfer (handover/sale) and decommissioning (partial demolition/full demolition/abandonment), and the associated risks and costs.

At this early stage in the process, the choice of engagement techniques is likely to focus on those that help to encourage 2-way dialogue, build trust and share knowledge. In many cases, face-to-face meetings may be appropriate.

While early open dialogue is generally encouraged, it is important that this is well informed and consistent. Engagement should, therefore, take place once the business and engagement objectives are agreed and can be clearly communicated, including any elements that are non-negotiable and why. In most cases, it is likely that stakeholders will be best approached in phases, with landowners and operators approached first. The information from these sessions can then be used to inform further discussions with additional stakeholders during Stage 1, where appropriate.

8.4.2 Stage 2 engagement activities

The extent to which engaging with stakeholders is appropriate or required, and the format that this may take will differ in each situation and should be proportionate to the scale and extent of the asset or system of assets in question and any risks identified in Stage 1. This may also depend on the level of impacts. For example, if the proposal will result in an asset transfer with no change in level of service, then the degree and extent of engagement may be less. Where there may be an actual change in level of service (for

example, asset decommissioning and abandonment), or a change is perceived locally as significant, closer and more extensive engagement will be necessary.

The extent of engagement will need to fulfil statutory requirements - but should also prioritise the most influential or most affected stakeholders and focus effort on these groups. For example, the relationship between asset owner and new owner during asset transfer is often likely to be collaborative. However, while other groups may have an interest in this process, they may not have as significant an influence on the outcome, so the focus of engagement with them could be around sharing information.

Typically, the extent and scope of engagement in Stage 2 will be broader than in Stage 1 and it may be appropriate to build dialogue with a wider range of stakeholders at this point in the process.

Existing guidance, such as that identified in section 8.3 identifies a range of engagement methods that could be used. The most appropriate for asset transfer or decommissioning situations are likely to be:

- one-to-one meetings (for example, face-to-face or video call)
- small group meetings
- briefings where appropriate, for example, it may be prudent to regularly brief elected members
- facilitated workshops
- exchanges of written correspondence
- wider information sharing, for example, via websites, newsletters and media

Important to note: Stakeholder engagement planning should acknowledge:

- it may be appropriate to engage with leading stakeholders and professional partners first (as identified in section 8.3.1), before engagement with the public or communities
- there are likely to be different types of engagement with different audiences
- the importance of engaging with people who may not want to be engaged
- the need to be realistic and proportionate, recognising that resources and time are often limited, but recognise that conversations with stakeholders are necessary, and can save time and cost later
- the need to schedule appropriately, relative to any consultation on other topics

8.4.3 Stage 3 engagement activities

Depending on the time it takes to implement the change, and for the length of time for any impacts to take place (for example, when coastal defences are removed and there is a period of increased erosion), the Stage 3 engagement may be a long process, which will require ongoing dialogue throughout (Case study 1 – Happisburgh, Norfolk).

As with previous stages, face-to-face contact during Stage 3 is likely to be productive. In some cases, where the works planned are high profile or elements have been previously

contentious, it may be beneficial to have a nominated liaison officer or point of contact who is recognisable to the community and who can provide a trusted interface with those implementing the preferred option.

Important to note:tasks in Stage 3 are likely to involve:

- publication of information (based on the main messages) explaining the decision taken, how this decision has taken into account feedback from consultation, and the approach being taken (particularly where physical works are required on the ground)
- briefings to ensure that all relevant stakeholders are updated on the decision taken, the reasons for this decision and the works planned
- briefings to ensure that leading community representatives (such as MPs, elected members) are up to date on the situation and can themselves respond to questions and queries
- wider communications, for example, with wider groups of local residents, who may be affected by the decision taken
- openly sharing information about the planned next stages and, during any construction works, regular bulletins about progress
- publicity about the positive benefits of the decision taken and the planned works
- ongoing engagement activities over a longer time period to ensure that there is an opportunity to monitor the situation and record feedback, for example, beyond the date of the transfer of ownership
- in the case of asset transfer, ongoing dialogue between current and new operators - a ‘lead-in’ and a ‘lead-out’ period could be included in the final negotiation of the asset transfer
- in the case of asset decommissioning resulting in removal of an asset(s), the previous operator should engage with those at risk as a result to allow them time to take appropriate actions
- at completion, communicate the changes that have taken place to all those stakeholders who have been engaged with during the process

Part C - Case studies

9 Examples in the form of case studies

To inform this user report and research project, several examples of asset transfer and decommissioning across England and Wales were investigated and discussed. Five of these are presented as case studies to help the user.

The case studies are presented to highlight methods that work well, the main challenges involved and the lessons that were learnt. Each case study has been prepared by working with knowledgeable stakeholders in each area to ensure information is correct.

Case study 1 and 2 focused on coastal asset decommissioning, specifically demolition of Groynes and revetment in Norfolk (1) and of a range of assets in Dorset (2). Case study 3 illustrates handover of fluvial water mills in Essex. Case study 4 provides an example of the sale and demolition of a fluvial pumping station. Case study 5 focuses on the decommissioning and demolition of a fluvial gauging station in Wiltshire.

The author of each case study was involved with the management of the asset(s) concerned, and the subsequent transfer or decommissioning. They have naturally focused to some degree on aspects of the process that they felt were the most significant, and that may be of most interest to others. The aspects of particular interest for each case study are outlined below:

Case study 1 – Happisburgh, Norfolk: Legal and regulatory process (for ceasing to defend and removing defences), stakeholder engagement (importance of long-term relationships).

Case study 2 – Poole, Dorset: Stakeholder engagement (systematic and open communication).

Case study 3 – Essex: Stakeholder engagement (building relationships, trust, and support to provide a situation where riparian owners take on maintenance of structures).

Case study 4 – Black Sluice pumping station, Boston, Lincolnshire : FCERM (assessment of assets at risk), stakeholder engagement (Importance of transferor and transferee working as team), continuous review (willingness to change from transfer to decommission).

Case study 5 – Ramsbury, Wiltshire: Asset information (importance of good data on asset in advance), environmental and sustainability (real environmental enhancement achieved).

Important common themes highlighted in these case studies include:

- the importance of establishing the land ownership/asset ownership situation at the start of the process

- early (and continuing) engagement is needed - this needs to be planned from the start to ensure consistent messages are given about the why, when and how asset transfer/decommissioning is being considered, supported by clear and robust evidence where possible – it is also useful to set clear end-dates for engagement/decision points, to encourage engagement with the process and avoid ‘drift’
- engagement needs to involve:
    - stakeholders external to the current asset operator’s organisation
    - stakeholders within (internal to) the current asset operator’s organisation, including senior management so that they understand and can support the process being undertaken
- clarity about what is to be achieved by engaging with different stakeholder groups (for example, are they being consulted with the opportunity to influence decisions or are they being informed?)
- the correct stakeholders (those with authority to make decisions and not an intermediary) to avoid miscommunication
- it is important to fully recognise from the start of the process that effective and meaningful engagement needs to be adequately resourced throughout and, in doing so, that the process can take many years (and may form part of broader long-term engagement with communities) - for more challenging situations, using external engagement/facilitation specialists can prove valuable
- funding for asset transfer and decommissioning can be challenging and take time to obtain and secure - this needs to be explored and progressed as soon as possible in the process - from the case studies, funding has been derived from a number of sources, including:
    - current asset operator’s own (revenue) budgets
    - environmental improvement funds such as Higher Level Stewardship funds

Specific considerations for asset transfer include:

- if there is a clear and obvious asset transfer situation from the current operator to another operator/landowner, there is great merit in both parties working together through the process. This is greatly helped by having face-to-face meetings or working in a shared office space (for larger asset transfer cases)
- the scale of asset transfer is important to consider, recognising that different new operators/landowners have different capability and capacity to take on asset maintenance

Specific considerations for asset decommissioning include:

- consenting processes for asset decommissioning involving demolition of assets can take time to be approved - therefore, begin this as soon as possible, including engaging with leading stakeholders in the consenting process, to reduce time delays in implementing
- if demolishing asset(s), consider how the material arising will be dealt with and look to re-use/recycle as much as possible

- be prepared to be flexible in the implementation approach which, when applied, may need to be adjusted to reflect unforeseen issues in planning demolition works, or in additional unforeseen risks arising as a result of demolition works

Throughout the text of this report, cross references to the case studies have been inserted where they help the reader by exemplifying or amplifying the point being made.

9.1 Case study 1 – Happisburgh, Norfolk

Falling beach levels have resulted in the failure of coastal defence structures, and subsequently increased erosion of cliffs, along the coast of Happisburgh in Norfolk. The shoreline management plan policy for this frontage is to allow a managed realignment of the coast in the short, medium and long term, with permanent replacement of the defences not being an option. The historic structures comprise a timber and steel breastwork revetment and timber groynes, varying in age from 40 to 60 years, along with a temporary rock sill to slow erosion rates.

Figure 9.1 Failed Happisburgh defences

Figure 9.1 shows coastal erosion and the damaged Happisburgh defences which have been washed up along the cliff in some locations. The failed defences posed a public safety risk and had to be removed for safety reasons, and so a programme of asset decommissioning by way of demolition and removal of the structures was carried out. Demolition has taken place in several phases over a period of many years. It has been led by North Norfolk District Council (NNDC) as the coast protection authority and asset operator.

9.1.1 Case study 1 overview

9.1.1.1 Assets

Ten timber groynes along approximately 1km of coast (all to be removed).

1,000 metres of timber and steel breastwork revetment (all to be removed), as well as residential properties at risk from erosion.

9.1.1.2 Location

Happisburgh, Norfolk, UK. National grid reference:TG 38414 30975

9.1.1.3 Dates

Works started in 2012 and were substantially completed by 2013. Some works are continuing as necessary to remove debris on the beach as it becomes exposed. Further work may be required on additional sections of defence.

9.1.1.4 Legal agreements

The sea defence assets were all owned and operated by North Norfolk District Council (NNDC). The houses were all privately owned. There were no other legal agreements pertinent to the assets themselves that posed an issue to their being demolished.

9.1.1.5 Annual maintenance

Prior to demolition, significant maintenance works had been regularly carried out from about 1980 on an annual basis to repair the revetment as necessary. A number of groynes were renewed in 1980 to 1990.

9.1.1.6 Cost

The costs of demolition works totalled approximately £190,000. This does not include significant staff costs involved in obtaining all the necessary permits incurred by NNDC.

A phased removal of significant sections of the failed defences over a period of years has been adopted rather than seeking to remove all of them in one go. This approach is seen by the local community as more favourable as it provides a gradual transition from defended to undefended (natural) state. It also has the advantage of allowing lessons learnt to be applied from one phase to the next and spreads the demolition cost over a longer period. Importantly, it allows NNDC to monitor the actual impact on the community as the defences fail, but also to understand the detail of the failure processes.

9.1.2 Timeline

The decision to remove the failed coastal defences was taken in 2012, when planning work commenced. The main steps taken were to:

- identify, collate and review all information held on the assets from NNDC archives
- assess risk of increased coastal erosion once defences have been removed
- obtain legal advice on how to proceed, to minimise risk of claims being made against NNDC
- plan and undertake extensive engagement with the local community
- obtain a marine licence from Marine Management Organisation, planning consent, and carry out investigations to satisfy requirements of Historic England
- procure contractors to carry out beach and demolition works

- commence demolition works (Phase 1) in April 2012. Further phases to present day

9.1.3 Documents and guidance used to inform the process followed

No specific guidance was used to demolish the in situ defences and appropriate contractors were invited to tender for both contracts to:

- remove the defences
- demolish the buildings

9.1.4 Asset information

The assets along this frontage were mostly constructed between 1954 and 1980, and comprised 10 timber groynes and timber and steel breastwork revetment, along approximately 1km of coast.

Figure 9.2 Close up of Happisburgh defences

Figure 9.2 shows the area where defences have been removed and sheet piles remain.

NNDC held a reasonable amount of information on the structures, so was able to accurately define the assets to be removed and plan accordingly. The preferred decommissioning method selected at the planning stage was to use heavy plant, mostly large excavators fitted with pile driving (removal) equipment to pull out structures and remove them from the foreshore.

However, once on site the chosen method could not be used everywhere and the method had to be changed at very short notice. Where steel sheet piles could not be removed cleanly, they were eventually pulled and ‘levered’ out using 2 or 3 excavators and a shallow dig into the clay sub-strata, with an archaeologist present viewing all works. Constraints on tidal working with this plant meant that some timber piles and panels of the steel sheets could not be removed as they were below low water even on big spring tides. These remain today.

9.1.5 Legal and regulatory framework

Where failed coastal defences are to be removed from a shoreline to improve safety for those using the beach, this could also lead to a period of accelerated coastal erosion and so hasten loss of cliff top assets. This could, in turn, come with an additional uninsurable risk of litigation based on the fact that the increased speed of erosion (in the short to medium term) adversely impacts cliff top asset owners.

Under Section 39 of the Flood and Water Management Act 2010, the authority removing the coastal defences would need to consider the balance of harm and benefit of doing so, and only proceed if the benefit outweighs the harm to nature conservation, cultural heritage or public enjoyment of nature/heritage. The risk may be considered acceptable by the operating authority and failed defences could be removed, notwithstanding the possible effects on short/medium-term erosion, provided the following conditions are met:

1. In making a decision to remove failed defences, the views and interests of cliff top landowners and other interested parties (for example, other local authorities and the Environment Agency) should be taken into account and safeguarded where possible.
2. A report/notice relating to the consultation and containing a consequent assessment of harm (impact on cliff top asset owners) and benefit (opening up the shoreline for safe and enjoyment by the public) should be published before any decision is made and the decision should only be in favour of removing beach debris when the benefit demonstrably outweighs the harm.

Given the above, legal advice provided by NNDC's solicitor was to provide public statement/notice to clearly explain the situation, what was being done, and that the impacts were uncertain. The purpose of this was to prevent claims against NNDC in the future and improve public awareness.

In addition, to proceed with implementing asset decommissioning, planning consent was required along with a marine licence from the Marine Management Organisation. As part of obtaining the licence, Historic England requested additional investigations, including boreholes at the low water mark. NNDC later considered these were not required due to the practicality of completing them versus the amount of data they collected.

9.1.6 Environmental and sustainability factors

The only environmental designation (at that time) in the area is the Happisburgh Cliffs SSSI, designated for its geological and geomorphological interests. As removal of defences would improve the features of interest, asset decommissioning was not an issue.

Historic England's request for extensive research as part of the marine licence application was due to the potential for non-designated archaeological evidence to be unearthed as part of the removal of assets. It was generally considered that the extent and therefore cost of the archaeological work was not proportionate to the costs of the coastal project, although significant archaeological oversight was completed.

NNDC recycled or reused as much of the ‘removed’ material as it could. This was considered in planning works and defined in a waste management plan (following relevant waste regulations). In preparing the waste management plan, a range of factors was considered, including:

- providing space to store, sort and prepare materials for re-use/recycling
- how assets could be deconstructed to maximise opportunity to reuse materials
- opportunities for other projects/organisations to make use of the materials

It was not always physically possible to remove all parts of defences, so some public safety/navigation hazards may remain. This is exemplified by NNDC finding older defences (for example, gabions) which had not been removed but left to degrade in the environment when doing recent decommissioning works at Happisburgh. In this case, the gabions had left pieces of metal along the beach and foreshore. Because the beach sediment is constantly mobile it was not possible to clean the entire beach. NNDC has provided special bins for local volunteers to deposit metal.

9.1.7 Flood and coastal erosion risk management

Removing failed coastal defences, while improving the safety of beach users, could also lead to an initial period of faster cliff erosion and loss of cliff top properties. The historic rate of erosion was in the region of 1.8 metres per annum. After the revetment was first constructed that rate reduced to around 300mm per annum.

It was therefore important to carry out a robust assessment of the potential change in erosion rates that could occur once defences were removed, including the range of uncertainty. The erosion at Happisburgh had been well studied over many years and so there was good data available to make this assessment. In addition, high rates of erosion had been witnessed when the defences were first breached, so the authority knew there were risks. After the revetment was first breached, regular cliff top surveys were initiated over a 3 kilometre stretch of coast, recording up to 13 metres in one area between 6 monthly surveys.

9.1.8 Finance and funding

Currently, there are no dedicated public funds available for asset decommissioning, so NNDC would normally have to fund the demolition works, from planning to implementation. However, this particular scheme to remove failed defences and properties at risk of erosion (within a 20-year profile) was funded by a Pathfinder Scheme initiated by Defra and a demolition grant to fund the removal of the properties. An £11 million Pathfinder pot was made available nationally to be bid for by local authorities. NNDC bid for and received a £3 million grant.

The scheme did not completely remove the defences and there are still some remnants that need removing. Defences on the adjacent coastline to the east and west are failing and also need to be removed in due course.

9.1.9 Stakeholder engagement

The ongoing, phased approach requires long-term continuing engagement with the community. This commitment from NNDC can be challenging given other pressures on limited resources. However, this is extremely important as it is the most sensitive part of the process (talking with communities and councillors in areas affected). This needs to be long term and ongoing as engagement is not something to be done just a few months before the works to remove assets. An important part of the engagement is explaining to people the impacts on erosion risk of removing assets, including clearly communicating the uncertainty of any predictions made.

The leading stakeholders engaged with in the planning of the demolition works were:

- the Environment Agency
- Marine Management Organisation (for marine licence)
- Historic England (via marine licence application)
- Natural England (regarding the impacts on Site of Special Scientific Interest (SSSI) and English Coast Path when works are being carried out)
- the local community (including property and landowners of the cliff top above areas where assets are to be removed)
- the general (wider) public to raise awareness of what was being done and why (improve public safety for those using the beach)
- parish council
- providers of statutory services, including RNLI and HM Coastguard

NNDC has engaged over many years, and indeed continues to engage, with the community at Happisburgh about long-term coastal erosion and shoreline management issues. This long-standing relationship formed the basis for beginning and continuing discussions when it was decided that the failed coastal defences needed to be removed for public safety reasons. No specific engagement guidance was referred to in the process.

During the planning of the demolition works, the following engagement activity took place: workshops, meetings, discussions, newsletters, media, briefing MP

It was considered imperative that the community was involved in the decision-making process, which informed the planning and, ultimately, final design of the scheme. It was important to know what could be done as well as what could not be done. It was important to manage expectations.

Engagement has continued during the implementation of the demolition works. When each phase of demolition occurs:

- the Pathfinder scheme was a one-off event funded by central government
- all other maintenance or renewal/removal works have been funded by NNDC from the revenue budget

- NNDC continues to fund the roll back of the ‘rock sill’ which is the only remaining defence in this particular area
- NNDC uses social media and traditional media press releases as well as working side by side with the parish council to provide continual, accurate and up-to-date information
- NNDC uses site signage and its own website to update and inform the community
- the parish council continues to play a critical role in disseminating information - the Coast Protection (CP) team (now Coastal Partnership East) at NNDC seeks and values its active support and maintains close and regular contact with the clerk and the chair of the council, as well as meeting the councillors on site and attending council meetings

9.1.10 Health and safety

As part of the planning for asset decommissioning, it was important to carry out an Unexploded Ordnance Assessment using specialist contractors. As noted above, while effort is made to remove all of the defences, it is important to note that it is not always possible to remove all parts of defences, so some public safety/navigation hazards may remain.

9.1.11 Other

On undefended cliffed frontages community access to beaches is very important, but this can be a costly process if the cliff top is eroding. At Happisburgh, NNDC maintains an earth access ramp. It does need regular maintenance works which shows a long-term financial commitment to the local community.

9.1.12 Successes

A staged approach to decommissioning and removing assets requires continuing long-term engagement with the community, who can see the benefits of doing so in terms of removing dangerous failed defences from the beach but importantly providing a new clean natural foreshore environment

Public statement/notices were used to clearly explain the situation, what was being done, and uncertainties about the potential impacts of removing the assets. The purpose of this was to prevent claims against the authority performing the decommissioning in the future and improve public awareness

9.1.13 Lessons learnt

Through this process, we learnt:

- that flexibility in approach to actual implementation of decommissioning needs to be considered as circumstances on site when demolition works commence may not be quite as anticipated when planning the works
- to plan for worst-case scenarios, as they will happen

- the MMO required NNDC to go through the full marine licence application process (as asset removal is not exempt under 'maintenance of an existing defence')
- for marine licences, engage with Historic England early in the process
- the most sensitive part of the process was talking with communities and councillors in areas affected - this needs to be long-term, ongoing engagement not something done just a few months in advance of wanting to do the works to remove assets
- that people want to know the impacts on erosion risk of removing assets - this needs careful consideration and communication of the uncertainty – and it needs a robust assessment of the potential impacts before implementation
- that keeping the public out of work areas is difficult (more so now given the national Coast Path under the Marine and Coastal Access Act)

9.1.14 Author

Rob Goodliffe, Coastal Manager, North Norfolk District Council (NNDC).

9.2 Case study 2 – Poole, Dorset

During the 1970s attempts were made (on a piecemeal basis) to retard rates of erosion by installing a variety of low-grade coast defences. 35 years later, these defences were in a very dilapidated condition and were clearly making little difference to the rates or degree of erosion taking place.

By 2009, it was deemed necessary to review the situation as some of the defences were failing to the point where they were a danger to the public and even to passing pleasure craft (palisade poles becoming dislodged and floating away into the navigation channel).

The decision to remove the assets was made for safety reasons. It is in line with the National Trust's policy 'Shifting Shores', which is to remove assets once they reach the end of their serviceable life, allowing natural processes to be restored.

9.2.1 Case study 2 overview

9.2.1.1 Assets

2.5km length of defences in total, comprising 2,606 (no.) 2m long larch palisade poles, 3 sections of gabion baskets (mostly 2 courses) (268 (no.) 1m3 gabions in total) and filled with pottery shards and one short section of steel piling (93m).

9.2.1.2 Location

Brownsea Island, Poole Harbour, Dorset, UK.

National grid references: SZ 00979 88008 to SZ 02884 87432

9.2.1.3 Dates

Overall, the process ran from October 2009 to August 2012.

Consultation and planning commenced in late 2009. The necessary approvals were carried out in 2010 and permission granted in January 2011. The contractor began works in mid-February 2011. The work was broken into 2 phases (spring and autumn) in order to miss the bird nesting and holiday seasons. So, the second phase and completion took place in November 2011. The final reports were ready in August 2012.

9.2.1.4 Legal agreements

Brownsea Island is wholly owned by the National Trust, albeit certain areas are leased out to third parties.

9.2.1.5 Annual maintenance

Each year basic work was done to keep 5 sets of access steps open and in safe condition. There were also regular safety checks carried out on the failing defences. The estimated cost for these works was £5,000 per year.

There are no known post-decommissioning costs. All monitoring of beach behaviour (post-works) was provided free of charge.

9.2.1.6 Cost

Approximately £64,000 (includes preparation, site control, paperwork and filming), but does not include salaries.

Having made the decision to remove failed assets, the first task was to survey the whole site to ascertain exactly what was involved and how the task might best be approached, especially as foreshore works are very specialist in nature. The National Trust also needed to engage with both its members and local communities. This involved:

- raising the issue of failing defences and the need to address them, in the National Trust Brownsea Island property newsletter
- a drop-in workshop open to all to come and find out about plans to remove defences and, importantly, why National Trust was not going to replace them
- engagement with those who had to give consent to remove the assets

National Trust's general project procedures included considering a range of sources of funding available to finance the removal of defences. Various statutory and non-statutory groups were contacted in early 2010. These included Historic England, AONB, the Environment Agency, Natural England and Purbeck District Council as well as Poole Harbour Commissioners, Dorset Wildlife Trust and John Lewis Partnership (both island tenants). Two presentations (workshop format) were also made to island volunteers and island staff, members and visitors. The main point of confusion and conflict was over the associated decision NOT to replace the failed defences with new ones. To many, this seemed counter-intuitive until it was more fully explained, that the beaches would be nourished and therefore healthier if the erosion of the slopes was allowed to continue unhindered.

Figure 9.3: Brownsea Island defences in 2008

Figure 9.3 shows eroding exposed cliff with a damaged small wooden fence at the toe of the cliff.

9.2.2 Documents/guidance used to inform the process followed

Besides referring to the 2010 version of the National Trust's 'Shifting Shores', the Halcrow (2004) Coastal Risk Assessment (CRA) work was also used as a guide and the subsequent Coastal Adaptation Strategy (CAS) documents that advocated 'working with natural processes wherever possible'. See References for additional documents used.

9.2.3 Legal and regulatory framework

The first task was to establish the demarcation of foreshore ownership. As there were no proposed works below Mean Low Water (MLW), the Crown Estate confirmed that it had no interest in the matter.

The works pre-date the authority of the Marine Management Organisation (MMO) and so the Coast Protection Act 1949 (Section 34) was invoked. This gives an exemption to a Food and Environment Protection Act 1985 (FEPA) licence (issued as part of the Food and Environment Act), so that any materials likely to cause an obstruction or navigational hazard can be removed immediately. Subsequently, the MMO further confirmed that a FEPA Licence was not required.

Planning permission was approved 9 months after the first approach following discussions as to whether or not a demolition order was required in this instance. The conclusion was that the works did constitute a demolition.

There was no debate regarding land ownership or asset ownership in this instance.

9.2.4 Environment and sustainability factors

Brownsea Island forms part of the Poole Harbour SSSI. Meetings with Natural England were productive, and resulted in a limitation on the work window by stating that any works

should be avoided during the bird breeding season. Therefore, the works were scheduled for February and November.

Consents to decommission assets were required from:

- Poole Harbour Commissioners - their main concern was that wood/timbers would be displaced and float into the navigation channels in the harbour, posing hazards to shipping and pleasure craft
- Natural England - its main concern was largely around how waste materials would be dealt with so that there was no/minimal environmental impact on the area (this took time to work through) - National Trust managed to recycle much of the spoil arising from the removed assets
- Purbeck District Council (local planning authority) - it took 9 months in total (from application to final decision) largely for the council to determine whether or not National Trust needed a demolition order to remove the assets - this length of time was mainly due to the planning authority not having had to deal with the scenario of removing coastal defences

Figure 9.4 Brownsea site during decommissioning works

Figure 9.4 shows an excavator removing vertical wooden posts from the beach.

9.2.5 Flood and coastal erosion risk management

Removing defences in this case had no impact on increasing the risk of coastal flooding, either directly behind the area defended or in the wider coastal process system. Coastal erosion rates did accelerate by a small margin in the 2 years following the defence removal (given that the defences were fairly ineffectual by that stage anyway). Beach levels and ambience did improve.

9.2.6 Finance and funding

Budgets to carry out this project were limited. In the end, National Trust provided the majority of the funding (approximately £43,000) from its own budgets. The balance of funding (approximately £22,000) came from Defra via Natural England (Higher Level Stewardship funds) and the Environment Agency.

9.2.7 Stakeholder engagement

Various statutory and non-statutory groups were contacted in early 2010. These included:

- National Trust local staff and members (to be encouraged as advocates)
- local (nearby) communities (to be encouraged as advocates)
- Poole Harbour Commissioners (statutory consultee and responsible for harbour safety and navigation)
- Natural England (statutory consultee regarding materials remaining on the beach and recycling of waste materials such as the timber and steel)
- Purbeck District Council (demolition and safe removal of waste materials and site safety compliance)
- Marine Management Organisation (MMO) (licence to work on the foreshore)
- Environment Agency (safe disposal of hazardous materials)
- visitors (opportunity to highlight change at the coast and National Trust approaches to this topic)

The main aspect surrounding engagement involved National Trust staff, volunteers and tenant staff (Dorset Wildlife Trust and John Lewis Partnership). These people were kept informed of progress, the main task of which was to explain why the old defences were not being replaced. Some staff members were concerned that erosion would accelerate out of control, but eventually the majority of attendees could see the wisdom of the ‘Shifting Shores’ approach.

Because there is only a nominal resident population on Brownsea Island, conventional public engagement was not considered appropriate. Nevertheless, staff, volunteers, tenant representatives and members of the visiting public were invited to 2 workshop sessions. These involved maps of the areas, historical photographs and a short talk on ‘Shifting Shores’, which basically constituted our ‘guidance plan’. A 15-minute film of the whole process was also made.

In summary, engagement involved:

- raising the issue of failing defences and the need to address them via the National Trust Brownsea Island property newsletter
- a drop-in workshop: open to all to come and find out about plans to remove defences and importantly, why National Trust was not going to replace them
- direct engagement with those who had to give consent to remove the assets - in this case, direct engagement was required with Poole Harbour Commissioners,

Natural England, Purbeck District Council, Marine Management Organisation and the Environment Agency

9.2.8 Health and safety

Removing defences in this case had no impact on risk to life or property, although the Environment Agency was consulted as statutory consultee on the planning application (demolition order).

9.2.9 Other

During works, the main technical issue for the contractor was moving the equipment and heavy plant onto the island and then working along a foreshore where the clay base is so close to the surface. They had to use crawlers (rather than wheeled vehicles) throughout. The work yard and areas of work were cordoned off and signage used in order to provide safety for staff, and visitors to the island.

Advice was obtained on projected erosion rates and Sea Level Rise (SLR) projections, and beach behaviour and recovery immediately post works were monitored. Beach levels were demonstrably improving by 2012/3 and erosional catch-up was observed and was much as predicted. The beach recovery levels (not rates) varied for the different transects along the 2.5km stretch of the south shore. The maximum increase in beach height recorded (after 18 months) was 15cm and the least improved transect recorded a height increase of 4cm.

A further bonus was the National Trust (history group) volunteers who agreed to monitor the archaeological remains along the foreshore (such as 18th century brick kilns). This group checked the behaviour of the shoreline during and after the works and they recorded their findings and lodged their photographs with National Trust. English Heritage was happy that ‘preservation by record’ was the acceptable approach here.

The other main reason for carrying out the work was the desire to see the ambience and ‘health’ of the beach improve. The beach is now a much more pleasant (and safer) area for visitors to walk, sit and play on.

Figure 9.5 Brownsea site in 2012 (after defences removed)

Figure 9.5 shows natural coastline with small beach before a large exposed cliff face.

9.2.10 Continuous review

The decision to remove (and not replace) the failing defences originates from the 2004 implementation of the 'Shifting Shores' policy by the National Trust, which advocates working with the grain of nature wherever practicable. This was an ideal site to test the theory and implement the policy; therefore the decision to change the approach from one of 'build→repair→renew→rebuild' was (and still is) the correct one.

9.2.11 Successes

This project achieved the following:

- raising the issue of failing defences and the need to address them via the National Trust Brownsea Island property newsletter (to 'warm-up' people to the idea of need to act)
- drop-in workshop open to all to come and find out about plans to remove defences and importantly, why National Trust was not going to replace them (as is people's more common expectations)
- removing defences deemed to be a success, with a naturally functioning beach now established
- National Trust managed to recycle much of the spoil arising from the removed assets
- the contractor work went extremely well with no interruptions to the planned work windows on the island - the loading and offloading of plant and equipment used a local boatyard contractor and a small landing craft
- removal and recycling of all the waste materials was also successful

9.2.12 Lessons learnt

The legal and compliance procedural time seemed excessive in relation to the size of the job, but that is a common complaint with most environmental improvement projects. The workloads for the Environment Agency, Natural England and the planning authorities mean that permissions are going to be slow, even when the applications are quite straightforward.

In summary, other main lessons learnt were as follows:

- if decommissioning of an asset needs planning approval (for example, a demolition order), this opens up a wider consultation period, with potentially additional consultees such as parish councils
- the need to manage removal and waste material carefully to avoid delays
- people do not like change and struggle to understand why there is a need/want to remove an asset rather than replace it with a new one - this needs clear communications and the operator will need to be prepared to answer typical questions such as:
- why are you getting rid of the asset? (the answer needs to be more than “we want to save money”) - it is vital that the function of the asset is established along with its continued usefulness (or otherwise)
- if you want to get rid of the asset, why would I want to take it on? - again, there is the need to identify ‘usefulness = operational value and not monetary value’
- what condition will you give me the asset in? - why would I want to take on an asset in ‘less than good’ condition?
- can I decommission the asset in the future? - same point again, we have to continually gauge ‘usefulness’

9.2.13 Author

Tony Flux, Coast and Marine Advisor, National Trust.

Further reading - there is more information (but not exhaustive) in the following:

- Estimates for Sea level Rise (Defra UK Climate Projections)
- APPLETON R.N., 1995. Brownsea Island Shoreline Report. Poole Harbour Commissioners (unpublished)
- MAY V.J., 2009. Brownsea Island Sea Level Change Study. National Trust (unpublished).
- The Two Bays Shoreline Management Plan
- Defra: Shoreline Management Plan guidance
- FLUX A.J., 2012. Brownsea Island Shoreline restoration Project 2010-2012. National Trust (unpublished)
- FILM: Brownsea Island Shoreline Restoration Project (15 mins) (2012). Produced by 196 Productions, Cardiff - note: this film gives an explanation of the whole project from inception to post-assessments

9.3 Case study 3 – Essex

The Environment Agency has maintained and operated around 40 to 60 water mills in Essex over the last 40 years, using permissive powers under the Water Resources Act 1991.

In 2016, the Environment Agency began a project to withdraw from the operation and maintenance of these third-party assets by reminding the mill owners of their riparian responsibilities. By January 2019, the Environment Agency had withdrawn from 24 mills, the first tranche of the process.

9.3.1 Case study 3 overview

9.3.1.1 Assets

Mill gates at 24 water mills.

9.3.1.2 Location

Various locations, Essex, UK.

9.3.1.3 Dates

August 2017 to January 2019.

9.3.1.4 Legal agreements

Over the last 40 years the Environment Agency has operated and maintained the gates, although the responsibility for them actually rests with the riparian owners.

9.3.1.5 Annual maintenance

Annual maintenance costs estimated to be £4,300 for each mill on average, with potential capital rebuild cost of £100,000 plus, for each mill.

9.3.1.6 Costs

Apart from staff costs of a 0.6 full time equivalent (FTE) person, there has been no cost to the Environment Agency. There is no obligation to restore mill gates to any particular condition as they are the responsibility of the riparian owners.

The main stages in the Environment Agency's process were to:

- identify landowners
- identify potential interested and affected parties
- develop a communications strategy
- write to MPs, county councillors, parish councils, National Farmers' Union (NFU), Country Land and Business Association (CLA) and others of potential influence

(including Environment Agency internal teams), explaining why the Environment Agency was following this course of action
- write to asset owners and inform them of the Environment Agency's intention to withdraw maintenance (with timeframe) and offer to meet to discuss how the Environment Agency could support owners through this process
- meet asset owners and provide support and advice
- communicate with and inform potential interested and affected parties of any changes that might occur, offering advice
- produce a handbook for asset owners to help them manage their assets
- provide a point of contact to offer ongoing advice to the asset owners after asset transfer

9.3.2 Timeline and costs

The only costs incurred by the Environment Agency to carry out this process (first tranche) were staff costs to employ a 0.6 FTE person for 3 years.

9.3.3 Documents/guidance used to inform the process followed

Environment Agency (2014). Protocol for the maintenance of flood and coastal risk management assets (England only) V4 27/01/14 (available on request from the Environment Agency).

9.3.4 Asset information

Third party owned, manually operated mill gates at 24 water mills.

9.3.5 Legal and regulatory framework

There is a general lack of knowledge and understanding on issues around riparian ownership responsibilities and the Environment Agency's application of its permissive powers under the Water Resources Act 1991. This exercise has also revealed a lack of legal powers available to the Environment Agency to address water level control issues.

9.3.6 Flood and coastal erosion risk management

In order to gain flood risk management understanding in this case study, available existing modelling was reviewed. It was found that there were few in existence that were of use for this task, as the majority of models exist for flood frequencies of 3.3% AEP and above, whereas the mill gates being handed over drown out at approximately 10% AEP events. As a result, in most cases, the assessment of areas affected by the mills was based on professional judgement.

9.3.7 Finance and funding

Only minor funding was required for safety signage. This was derived from the Environment Agency's routine maintenance funding that was in place up until the assets were formally handed over to the riparian owner.

9.3.8 Stakeholder engagement

To determine who should be engaged, it was first necessary to understand:

- what the impact might be if the mills are not maintained, or should the owners choose to operate them in a different way, such as change the head of water retained
- the legal rights of asset owners or potentially affected landowners
- that any legal redress lies between all parties as a civil action - the Environment Agency has very limited powers to intervene (predominantly flood risk powers only)

The main stakeholders engaged with were the riparian owners who had responsibility for the assets. This included encouraging riparian owners to communicate with their neighbours. In addition, leading influencers were also engaged to explain to them why the Environment Agency was following this course of action. These included MPs, county councillors, parish councils, NFU, CLA and Environment Agency internal teams.

As this was deemed a high-profile project with potential reputational impacts for the Environment Agency, a comprehensive project plan was developed. Within that, a communications strategy was developed with input and advice from the Environment Agency local communications team in accordance with the 'working with others' approach. This led to an umbrella communications strategy of informing MPs, NFU, CLA, county councillors, parish councils and other potentially interested external bodies, together with internal Environment Agency teams of the proposals.

Environment Agency internal teams were engaged at an early stage so they understood what was intended and why. This gave the opportunity to understand what the potential impacts might be on all aspects of Environment Agency work and to understand what could be done to mitigate any adverse effects. It was a very useful learning exercise as it revealed the lack of legal powers available to the Environment Agency to address water level control issues.

The change in maintenance approach caused some concern with the mill owners. Discussions were sometimes difficult, but it was felt that the best outcomes for all parties were achieved in face-to-face meetings.

Local, directly affected stakeholders that needed to be engaged/informed were relatively easy to identify.

It was much more difficult to identify who the wider stakeholders might be; in particular members of the public who might be affected by a water level that might (or might not)

change. The decision was taken that this group was impossible to target effectively and questions would be dealt with after the event on an individual basis.

9.3.9 Health and safety

Where the Environment Agency had carried out risk assessments, these were handed over to the riparian owner. Any control measures that had been installed by the Environment Agency were left in position unless the Environment Agency was expressly asked to remove them. Environment Agency signage on assets was replaced with unbadged signage as a default position.

9.3.10 Continuous review

The decision to change the management approach was based on flood risk to people and property. These assets were identified as not having sufficient impact on flood risk to people and property to justify the continued expenditure of public money. The process is constantly under review and continues for any future tranches on the remaining mills that have yet to be withdrawn from and which have legal agreements in place.

9.3.11 Successes

It was helpful at the meetings to have in-depth knowledge and experience of all relevant aspects/issues so that questions raised could be answered at the time rather than providing answers later once checked with others.

It is important that senior managers and colleagues in all main parties/organisations proposing the transfer are committed to provide the required level of support when landowners (and/or others) challenge the process (for example, engage lawyers; contact MPs).

Putting an ‘end date’ for the process in place when starting the engagement with landowners puts onus on the landowner to engage in the process. This helped to drive things forward (and there is always the option to ‘move the end date’ as part of the discussions, if appropriate). Not having a fixed ‘end date’ just encourages deferment of discussions and drift in the process.

9.3.12 Lessons learnt

Through the process, we learnt that:

- it is important to be clear on what is meant by ‘engagement’ in the process of transfer or decommissioning of assets:
    - in the case of the Essex mills project, engagement has been about informing and supporting stakeholders with the change
    - it was not consultation as there was not a range of options that could be proposed - any arrangements would have to be between third parties; it is not the Environment Agency’s responsibility to resolve civil matters

- it is important to be clear on what an asset is there to do (why was it built? - what function(s) does it serve? - what happens if it does not operate as intended?
- it is important to recognise that different stakeholders will have different needs - some will be accepting of the change straightaway, others will need longer
- in the vast majority of cases, the status quo was maintained after handover to the riparian owner

9.3.13 Author

Gary Cockett, Advisor, Environment Agency.

9.4 Case study 4 – Black Sluice pumping station, Boston, Lincolnshire

The Black Sluice complex consists of a pumping station built in 1946 (containing 3 diesel pumps, with 2 added in 1966), a highway bridge, a gravity sluice and a dual-purpose navigation lock. It is located in Boston, south Lincolnshire at the outfall of the South Forty Foot catchment; a typical, heavily modified fenland catchment, draining 60,000 hectares of largely arable land, with dispersed towns and villages.

The sluice and lock play an important role in managing flood risk in the catchment, but the pumps do not. In 2012, a modelling and economic study showed that the pumps provide no benefit for people and property, and a negligible role in protecting agricultural land. The study concluded that the pumps were at the end of their useful life and would need significant funding to refurbish them, substantial resource to operate them during high flows, along with high routine maintenance costs, all of which would have little or no effect on upstream river levels. In December 2013, a tidal surge inundated the pumping station, leaving 3 of the 5 pumps inoperable. The remaining 2 pumps were then only operated twice between 2013 and 2018.

Throughout the pumps' lifetime they have not been in operation 99.8% of the time. As the pumps have been operated under permissive powers, there are no legal implications to stop using them.

Following a formal consultation and investigation of options, in October 2018 the pumps were formally decommissioned and removed from all operational procedures. This has left a large building in a prominent urban position with continued Environment Agency liability, health and safety requirements, and ongoing maintenance and inspection needs. These liabilities will need to be removed to allow transfer or decommissioning of the asset.

The sluice and lock continue to be maintained and operated by the Environment Agency.

Figure 9.6 Inside the Black Sluice pumping station, Boston, Lincolnshire

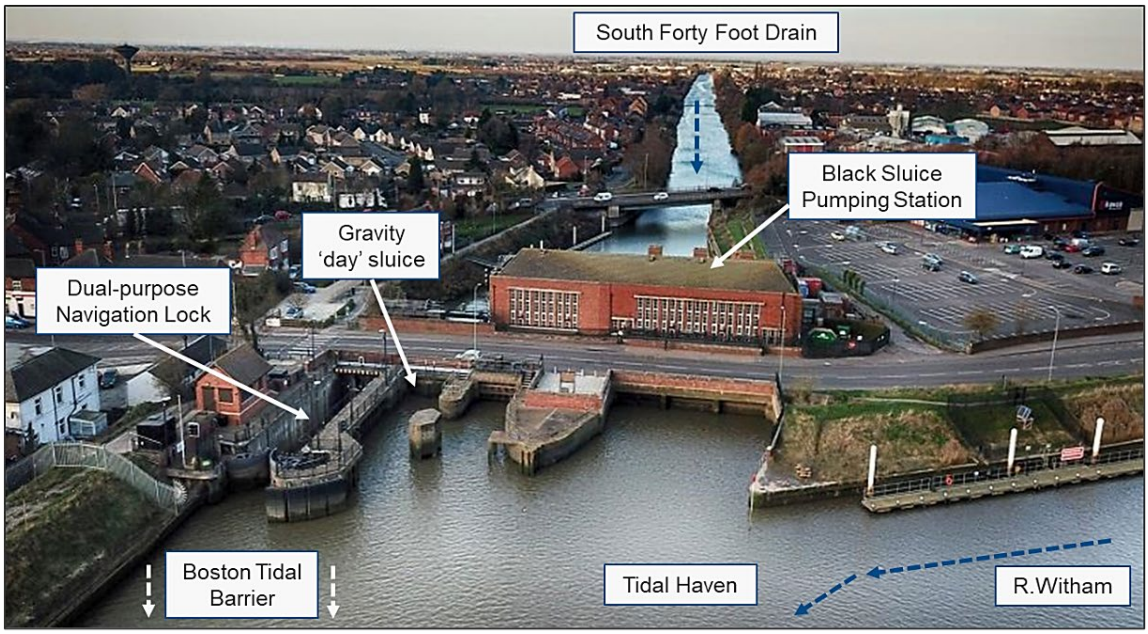


Figure 9.7 Aerial image of the Black Sluice complex, Boston, Lincolnshire

Figure 9.7 highlights the following areas of the sluice complex : South Forty Foot Drain, Black sluice Pumping Station building, the River Witham, Tidal Haven, Boston Tidal Barrier, Gravity 'day' sluice and the dual-purpose navigation lock.

9.4.1 Case study 4 overview

9.4.1.1 Assets

Black Sluice pumping station comprised of:

- 5 diesel pumps, 5 penstocks, weed screen and booms
- the building itself which houses the pumps (lock and sluice are physically separate assets)

9.4.1.2 Location

Boston, Lincolnshire, UK. National grid reference: TF 3264642886

9.4.1.3 Dates

April 2012 until 2022 to 2023.

To note, this end date is for the basic decommission works, not the repurposing of the building.

9.4.1.4 Legal agreements

Historically, the pumps have been operated under permissive powers, therefore there are no legal implications to stop using them (the Environment Agency will continue to operate the sluices).

Both the asset and associated land are owned by the Environment Agency.

Any new pumps need to comply with Eel and Fish Regulations.

9.4.1.5 Annual maintenance

£160,000 for frequent works (carried out every 1 to 3 years). This does not include intermittent works needed on the asset every 4 years and over.

9.4.2 Timeline and costs

Broadly, the main stages in the process of decommissioning/transfer were as follows:

2012: Black Sluice Catchment Works (BSCW) study: updated with modelling, economic assessment and public drop-ins.

2013: December tidal surge.

2015/16: BSCW formal consultation and report: completed in partnership with Black Sluice Internal Drainage Board (IDB).

2016: South Forty Foot (SFF) Steering Group formed: chaired by external partner with representatives from all significant stakeholders.

Engagement strategy put in place and started.

2017/18: Investigate feasibility of asset transfer to Black Sluice IDB.

2018: Summer - the IDB confirmed asset transfer not viable.

2018: October - the SFF Partnership formally announced the operational decommission of Black Sluice pumping station (BSPS) at the Anglian Northern Regional Flood and Coastal Committee (RFCC) meeting.

2019: Summer - Heritage Lincolnshire commissioned to carry out options appraisal report for a future use of the building.

2019/20: Winter - Project slowed due to prolonged flooding impacts across Lincolnshire and Northamptonshire Area. SFF catchment saw no flooding and lock successfully used as a secondary sluice.

2020: April - Project team formed for the repurposing and Environment Agency-led transfer or decommissioning.

2020/21: Effectiveness Initiative funding secured 2020/21 and 2021/22 for decommission design.

2021/22: Winter - Collaborative Delivery Framework contract awarded to investigate the 'make safe' decommission options.

Winter - Arup and Jacksons complete civils inspection and the Environment Agency's Mechanical Electrical Instrumentation Control and Automation (MEICA) teams report on current condition.

2022: October - Decommission options report by Jacksons is received.

2023: February – Project Lead and Operations Manager attended National Delivery Portfolio Board (Environment Agency only) to raise ongoing significant funding needs for site (even with pumps out of use) versus the challenge of securing revenue funding for full divestment of the asset.

March - Sub-group of Delivery Portfolio Board is confirmed and project moves to full business case.

Next steps

Environment Agency to finalise the full business case alongside bid submission for 2024/25.

Project Team to progress marketing and sale of building in line with Boston Town Plan.

Environment Agency to work with Estates and Legal to transfer bridge to Highway Authority.

The decommissioning process was carried out in 3 phases:

- phase 1: operational decommission of pumps
- phase 2: make safe decommission of assets
- phase 3: full divestment of the building

These phases and their associated costs are described in more detail in the following sections.

9.4.2.1 Phase 1: operational decommission of pumps

Annual maintenance: pre-operational decommission (2018)

Costs
These were:

- £160,000 for frequent works (carried out every 1 to 3 years) - this does not include intermittent works needed on the asset every 4 years and over
- intermittent costs for weed screen maintenance/replacement (£300,000); building maintenance such as health and safety, heating system and roof; continued 6 to 10-year inspections of underwater elements (including tidal outfall)
- refurbishing the pumps: £2 to 3 million to install 2 fish friendly electric pumps running off diesel generators

Catchment study: Black Sluice Catchment Works (2012 to 2016)

Cost: £0.5 million

Background

In 2012, the negligible role of the pumps was evidenced by a whole catchment modelling study and economic appraisal. A storm surge caused further damage to the assets in 2013, underlining the funding issue and leaving only 2 pumps (the 1960's ones) operational.

In 2015, a formal consultation, carried out in partnership with Black Sluice Internal Drainage Board (BSIDB), looked at the future of the pumping station, and how the whole catchment could be better managed to reduce flood risk. This was a very publicly and politically sensitive project due to misperceptions about the role of the pumps and a lack of trust in the factual evidence.

The public's preferred option was to refurbish the pumps. However, this was not an economically viable option for the Environment Agency. The second option was to transfer the pumps to BSIDB, which was taken forward for investigation by the newly formed South Forty Foot Steering Group. This was alongside other options for the whole catchment, including desilting the channel, bank armouring, and a review of the sluice and lock operation during a flood incident.

Members of the South Forty Foot (SFF) Steering Group included the Environment Agency, Black Sluice IDB, the Association of Drainage Authorities, the National Farmers' Union, Boston Borough Council, Lincolnshire County Council and Chairman of the Anglian Northern Regional Flood and Coastal Committee (RFCC).

2015 flood risk modelling:

- 1 in 10-year event: no properties flooded; ~178ha of agricultural land = 0.3% of the catchment

- highest estimate for damage to agricultural land of £3.3 million over 50 years = £60,000 a year

2015 economic assessment scenarios:

1. do nothing - for example, the Environment Agency continues to operate pumps with no upgrade/refurbishment
2. do minimum: decommission Black Sluice pumping station (BSPS) and reactive South Forty Foot Drain embankments work (cost-benefit ratio (CBR) 0.9)
3. decommission BSPS and sustain embankments (CBR 3.0)
4. refurbish BSPS (replace 2 pumps) and sustain embankments (CBR 0.5) - preferred option from formal consultation (but not cost beneficial)
5. transfer BSPS and sustain embankments (CBR 12.3)

Asset transfer to Black Sluice Internal Drainage Board (IDB) (2017 to 2018)

The Environment Agency worked in partnership with Black Sluice IDB to progress the option of transferring the asset (the pump station only) to them as a risk management authority. This process assumes that the asset will continue to be operated in a water management capacity, that's why a commuted sum (see 'Asset transfer costs' section below) was viable. This would allow the Environment Agency to focus on maintaining and operating the sluice and lock.

Due to the negligible benefit to agricultural land, improved operation of the sluice and lock, as well as the significant cost to install more efficient pumps, the IDB was not able to progress the asset transfer.

During this time, the Environment Agency continued to maintain but not operate the 1960's pumps.

Asset transfer costs

Environment Agency costs before 2018:

- routine: £168,000 a year
- intermittent: £240,000 a year
- repair damaged pumps: £300,000 each (gearboxes only)
- commuted sum (to IDB): £700,000 (3 years frequent maintenance and decommission cost, minus value of site)

IDB pump refurbishment: £2 to 4 million (2 fish-friendly electric pumps with diesel generators)

NOTE: the above decommission (removing the pumps only) and market value were made in 2017 based on 2016 estimates – updated costs are included in the following sections.

Formal operational decommission of the pumps (December 2018)

With the option of asset transfer not financially viable, the SFF Steering Group formally announced the operational decommission of BSPS at the Anglian Northern RFCC meeting. This was also communicated via a press release, public drop-ins, and to partners and interested contacts.

The lock and sluice would remain the primary flood and coastal risk management assets for the SFF Drain, focusing resource and funding. The Environment Agency would work with partners to make repurpose the building and make it safe.

The Environment Agency also confirmed the building would need to be structurally maintained and comply with health and safety requirements until the site was made safe and sold or demolished. This is due to the ongoing liability of a building in an urban setting, and the risk to water management and public/road safety if the sub-structures or building civils degraded.

9.4.2.2 Phase 2 (current): ‘make safe’ decommission of assets

Cost: Less than £100,000 (investigations of options only)

Annual maintenance: Post-operational decommission (2018 to ongoing)

Despite no longer operating the pumps, as the asset owner, the Environment Agency is still liable for the site. This includes ongoing costs and risks, as well as significant future funding needs to comply with relevant inspection requirements, such as inspection of the bridge and tunnels beneath the highway. These costs are set out in Table 1.

Table 1: Annual post-operational maintenance costs

Item	Cost (£)
Electricity	1,000
Diesel	1,000
Maintenance checks	2,500
Health and safety	8,200
Public safety risk assessment	300
Amenity	2,000
MEICA planned preventative maintenance	15,000
Building maintenance	5,000
Staff time (for example, site responsible officers)	8,500
Total annual maintenance	**43,500**

Table 2: Non-annual post-operational costs. The figures are initial estimates (2023) in consultation with suppliers and internal technical leads. Further analysis, including for efficiencies would be the next step

Other non-annual costs	Item	Cost (£)
Every 5 years	Building civils repairs	**5,000**
Every 6 to 8 years	Bridge and penstock inspection	**1,500,000**
One-off	Decommission	**4,000,000**
One-off	Demolition (if site not sold and in addition to above decommission cost)	**3,500,000**

Following the formal announcement by the Partnership at the Anglian Northern RFCC that the pumps would no longer be operated and would be decommissioned, the project

evaluated the physical decommission needs for the site. The following options were shortlisted:

1. Do nothing (mothball): for example, stop all maintenance, MEICA, health and safety checks and lock door to building:
2. **option rejected:** risks too high, including health and safety and ongoing liability
3. Do nothing and sell asset in current state:
4. **option rejected**: risks too high, including health and safety and ongoing liability
5. Do minimum: continue to maintain the structure as is, including intermittent works, bridge works and health and safety compliance
6. **option shortlisted:** not a viable option in the long term, but included for comparison and as an interim measure
    a in next 5 years (no decommissioning) = £1.75 million
    b in 30 years (with decommissioning) = £9.3 million
7. Make safe decommission of building and extending out to tidal outfall
8. option shortlisted – preferred option
    a present value cost (inflation not included)
    b in next 5 years (no decommissioning) = £4 million
9. Full decommission (demolition)
10. **option shortlisted** (but highly unlikely due to local historical value of building)
    a present value cost (inflation not included)
    b in next 5 years (no decommissioning) = £7.5 million

The Environment Agency also helped a project team with external partners (local council representatives and internal and external experts) to review future options for the site. This needed to align to the Boston Town Plan and could not impact the operation of the lock and sluice.

Decommission design: making the building safe/watertight

The Environment Agency worked with framework contractors Jacksons and Arup to carry out a detailed MEICA and civils inspection of the site to inform an initial decommission design with costs. Three options are summarised below but are initial costs only and subject to further investigation and efficiency savings.

9.4.2.3 Option 1

Includes decommission of BSPS civils building footprint only. The benefit is that this approach removes routine maintenance; allows sale of building. The risk is that the bridge (condition unknown) remains Environment Agency responsibility with significant cost. The total cost is estimated to be £1,493,466.

9.4.2.4 Option 2a

Includes decommission of culverts extending beyond BSPS footprint to the tidal Haven outfall – works carried out landward side. The benefit is that this approach removes all liability from site and allows sale of building and bridge transfer. The risk is that it may

increase the need to do works from the road bridge, and the associated cost of desilting and associated works. The total cost is estimated to be £4,602,633.

9.4.2.5 Option 2b

Includes the decommission of culverts extending beyond BSPS footprint to the tidal Haven outfall – works carried out on tidal site. The benefit is that this approach removes all liability from site and allows sale of building and bridge transfer. The risk is that there is a higher cost associated with additional barge working in the tidal limit plus desilting cost.The total cost is estimated to be £6,098,988.

It is also important to note that the penstocks beneath the road and building could not be inspected. The tidal area of the tunnels is now silted up and the cost to carry out inspections with divers would be significant and not a good use of funding. Therefore, their condition remains unknown.

Overall, to remove all Environment Agency liability for the site and allow the sale of the building, the minimum need is to infill all below-ground chambers with concrete, securing the site and making it ‘watertight’. It would also need the MEICA elements to be made safe. However, due to the heritage appeal, it is unlikely that the pumps and associated assets would be removed.

If pumps were removed, they would be offered to a local engineering college or museum for preservation or educational purposes.

9.4.2.6 Phase 3 (future): full sale (divestment) of building

This phase will begin once the building has been made safe/watertight and will include:

- transferring the land beneath the road to Highways
- working in partnership with Boston Borough Council to sell the building on the open market (or through initial expressions of interest)

The Environment Agency is not able to repurpose the building but can work with others to ensure its future use is suitable.

Previous work by Heritage Lincolnshire (costing £30,000) was invaluable in understanding the options. This included:

- an options appraisal of the site, considering the local economy, amenities and heritage value of the site
- input into monthly project meetings with expert advice
- design and summary business plan for an initial preferred option for the site - this was a multi-purpose site with holiday accommodation, restaurant and environment centre and museum - unfortunately, this option was not viable but was critical in focusing the Project Team’s options

The current preferred option, although dependent on the future owner, is a site with serviced holiday apartments, a small museum preserving 2 pumps, and a potential marina on the South Forty Foot Drain.

Until the make safe decommission is confirmed, further investigations are on hold.

9.4.3 Legal and regulatory framework

9.4.3.1 Land Registry challenges

Part of the land on which the pump station sits was not registered with HM Land Registry as Environment Agency owned. However, the Environment Agency Estates team made a strong case and full ownership of the land was confirmed.

9.4.3.2 Withdrawal of operation

It was necessary to explain to landowners that they would not be able to claim compensation for minor flooding when the pumps are not used (the non-use of Environment Agency permissive powers means there is no legal obligation to pay compensation). Additionally, the low spots in the embankments do not mean that the Environment Agency is creating designated sacrificial areas of farmland for overtopping. The low frequency of the flood events also means that agricultural land grading would not change.

9.4.3.3 Sale of government assets (Treasury Rules)

When selling (or transferring) an asset, it is essential to seek advice in the early stages on the correct process from Legal and Estates. These are the challenges and actions relevant to this project:

- understanding land ownership (including detailed maps from Estates)
- meeting Treasury Rules around asset disposal, including the book value for an Environment Agency owned asset with associated land
- the asset disposal process must be followed (set out in the ‘General steps when disposing of an asset’ section below)
- the sale of the asset must be transparent - as a minimum, expressions of interest are needed to test the market, potentially leading to sale on the open market
- updated valuation of the site, based on the ‘make safe’ decommission must be completed
- transfer of the land beneath the road to Highways

General steps when disposing of an asset:

1. Carry out internal consultation to confirm the building is not needed, raise any rights to be reserved with appropriate teams, and get sign off from the asset owner:
    a (If relevant) complete an Energy Performance Certificate (EPC) assessment.
2. Area Director sign-off to confirm disposal of asset via the Estates Team:

    a. complete market valuation of the site/asset and find out book value.
    b. depending on market value, potentially contest book value.
3. Electronic Property Information Mapping Service process for 50 working days minimum – potentially more time needed for prospective public body investigations.
4. Market testing through expressions of interest or sale on the open market.

9.4.3.4 Health and safety regulations

It is important to note the duty of the Environment Agency to meet its health and safety obligations for the site, even if the part-decommission costs are high. As landowner, the Environment Agency has a duty to ensure the public and users of the site remain safe despite the asset no longer being operational. This will form an essential part of the business case for decommissioning and also aligns with ISO 55000 accreditation requirements for a whole lifecycle approach to asset management.

9.4.3.5 RFCC approval

All asset decommissions should be taken to the local Regional Flood and Coastal Committee (RFCC) for awareness, if not for approval. These meetings are quarterly.

9.4.4 Environmental and sustainability factors

During the transfer, the asset needs to comply with the Eel & Fish Regulations. This increases the cost of the project to fit fish-friendly pumps.

Sustainability factors include:

- carbon saving options for the make safe decommission and/or compensatory habitat to offset emissions
- achieving the Environment Agency's sustainability goals, including net zero carbon, social value and innovation

9.4.5 Finance and funding

This continues to be the challenge for many asset transfers or decommission projects, particularly on this scale. The financial and funding issues experienced in this project were:

- decommission projects of old structures are inherently costly due to the unknowns and the scale of the need – but will, in the long term, be the most cost-effective option
- due to the nature of the works, this project cannot use capital funding – bids can be made for resource (revenue) funding, but this is a significant challenge
- projects such as this can be very resource intensive, particularly for sensitive sites - this project has involved a true partnership approach for the decision-making, and in-kind resource for certain elements
- the Effectiveness Initiative Programme has been a useful source of funding to carry out investigative works, such as costings of the decommission option

- this project was also unable to attract flood defence grant-in-aid funding at any stage because no properties were being protected by the operation of the pumps: the IDB investigated other options, but none were viable even for agricultural benefit
- RFCC local levy has been approved on an annual basis for future decommission projects, which is another option to consider for smaller costs

9.4.6 Stakeholder engagement

The project was delayed by local politics and has taken several years to progress. This was largely due to a combination of:

- the misperception of locally influential individuals that the pumps are needed
- a lack of public acceptance and trust in the modelling/science

The challenge of reactive engagement during high flow periods and the misconception that high water levels in the catchment are the result of the pumps not operating had to be answered. It was important to present the factual evidence for why this was not the case and explain that the catchment was operating naturally.

Proactive and dedicated engagement specialist support has been vital to the progress of this project, with one full time specialist supporting the project team at its peak. The project benefitted from the following:

- the project has an engagement plan, following the ‘Working with Others’ approach
- the formal consultation was time intensive but invaluable - it encouraged the IDB to consider an asset transfer and gave the opportunity to give stakeholders full sight of the evidence from the modelling and economic outputs that went into the proposals to decommission

Important to note: It is essential to discuss the formal consultation process with your Communications and Engagement team to understand actions and timescales – you will need to allow plenty of time (approximately at least 6 months) for this.

- engagement was aligned with other flood and coastal erosion risk management projects not only in Boston, but across the wider catchment
- developing effective engagement materials such as briefing notes, partner question and answer documents, display materials, holding public drop-ins and using other events have all been crucial in engaging people in the project
- using novel ways to engage is also beneficial - for this project the Environment Agency developed a 3D virtual model of the site (supporting inclusive engagement) and gave guided tours during annual Heritage Open Days
- taking a true partnership approach to announcing and moving forward decommissioning; this included co-attendance at meetings and events, logos on emails and engagement materials and using other organisations to be the voice of the Environment Agency such as using the IDB or National Farmers’ Union when talking with the farming community
- internal teams must not be forgotten when engaging on projects like this

- attending regularly meetings such as Association of Drainage Authorities Branch Meetings, IDB Board Meetings, and Environment Agency Business and Portfolio Boards

The main stakeholders and partners involved in the project are:

- Black Sluice IDB: transferee, risk management authority (RMA)
- Lincolnshire County Council: lead local flood authority (LLFA) and RMA
- Boston Borough Council: RMA and the council the pump station sits in
- Black Sluice IDB Board: landowners, councillor representatives
- National Farmers' Union
- Association of Drainage Authorities
- Anglian Northern RFCC: for example, important in overseeing RMA funding and projects for the area and approving decommission
- landowners: important stakeholder as some were against the decommission
- waterways users (due to lock sitting alongside): Inland Waterways Association, Canal and River Trust and local boaters
- local heritage or preservation societies (for the site's future use)
- internal Environment Agency teams

From Phase 2 onwards, there will be no need for a formal consultation, but proactive engagement will continue once funding is secured.

The project partners will also actively engage communities to feed into the future use, including public events and open days to see the asset. The Environment Agency is working with a heritage project consultant on this.

9.4.7 Health and safety

It is essential to recognise the health and safety needs after an asset has been decommissioned. These must ensure that public and future users are not at risk due to a lack of maintenance, or insufficient part-decommissioning of the building to make it safe.

If staff and visitors need to continue to access the site, health and safety requirements must be maintained, for example, fire safety, security, maintenance checks and sump pump works.

When looking at asset transfer, it was important to understand training needs to ensure the IDB was competent at running this type of asset, including potential joint operation of the pumps and sluices. Safety of IDB staff, river users and Environment Agency staff was also considered.

9.4.8 Successes

Noteworthy successes within this project include (but are not limited to):

- improving the relationship with Black Sluice IDB by working in a true partnership, a success which continues to provide benefits today, including positive joint working

during flood incidents - without IDB support for the decommission, the project would have been more challenging, if not impossible
- involving and actively listening to those working and living locally to ensure a transparent and effective engagement approach - for example, opening the Boston Community Hub for weekly drop-ins, talking with field and MEICA teams informally at offices, and taking time to respond to enquiries
- a transparent process for the asset transfer, supporting the IDB to assess viability, but fundamentally allowing them to go through the process themselves to see the risks and challenges first hand
- successful operational decommission of a sensitive and prominent pump station, with no formal objections following detailed and significant engagement
- securing support from all essential partners to announce the decommission and progress the make safe phase, including using partner logos on press releases
- relative consistency of Environment Agency leads and having clear records and knowledge to draw from previous reports and phases in the project
- creating single points of contact for vital pieces of work, such as for the Legal and Estates elements - this included monthly meetings to check on progress and routine meetings on various topics

Fundamentally, the success of this challenging project has shown that persistency is important, including having the right resources to progress the project. Delays in addressing end of life or degrading assets will only result in increasing costs and risks.

9.4.9 Lessons learnt

A fundamental lesson for this project is the importance of proactive engagement, with support from an engagement specialist throughout.

The main lessons learnt are:

- include engagement support from the start – account for it in funding
- engagement is not a tick box exercise: a meaningful and measurable approach is needed, allowing communities to discuss and understand
- discuss the ‘Working with Others’ approach, such as the needs of formal consultation with your Customer and Engagement Team or Engagement Lead well in advance – these can be lengthy, but critical steps
- be prepared for challenging conversations, clearly show the factual evidence and create accessible briefings - for example, develop a question and answer for the Environment Agency and external partners
- do not rely only on the basic methods of engagement and communication - attend meetings, join public events, encourage interactions beyond emails
- be ready to adapt - an engagement strategy is not a fixed process, but changes with the project and must be reviewed regularly
- record everything, especially for contentious projects – such as all emails, phone calls, meetings, in-person interactions - as this is the evidence base for ensuring the Environment Agency meets the needs of the community and partners

Other important lessons learnt for any decommission project are:

- do not underestimate the time involved, including the background work
- balance a quick decision now versus significant fallout later due to poor engagement or siloed decision-making
- do not undervalue the importance of a partnership approach – who are the main stakeholders, how on board are they, how can you build that relationship?
- think beyond the specific asset and where it sits in a catchment – are there other projects nearby to align to or understand, what about the whole catchment, will colleagues want to know your headline messages?
- create a clear project team with one representative from each relevant internal team, ensuring one point of contact will support project delivery
- know the asset from the start - for example, find out all the history, gather all records, including drawings and reports, talk with long-standing team members, carry out Land Registry searches
- learn from others - are there similar projects in England, who can you share your learning with, how can you support national teams on the approach?

9.4.10 Author

Abigail Jackson, Project Lead, Environment Agency.

9.4.11 Further reading

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9.5 Case study 5 – Ramsbury, Wiltshire

Sited on an old abandoned matchstick plantation, Ramsbury Gauging Station was constructed in the 1980s and consisted of 2 fixed crest weirs to help calculate flow. The weirs form a total barrier to fish movement up an important tributary of the Kennet SSSI.

The site was declared unsafe by the Environment Agency's Hydrometry and Telemetry team due to the risk of falling trees and was subsequently abandoned. When Water Resources Revenue funding to decommission the site became available, the project was moved forward to allow renaturalisation of the stream channel and open up 5km of chalk stream to fish passage.

Figure 9.8 Ramsbury Gauging Station

Figure 9.8 shows 2 images - the left it shows the left-hand side of the Ramsbury gauging station concrete channel with concrete weir that would have been used for taking river gauge measurements. The image on the right shows felled trees with of woody debris on woodland floor.

9.5.1 Case study 5 overview

9.5.1.1 Assets

Two fixed crest weirs.

9.5.1.2 Location

Ramsbury, Wiltshire, UK, National grid reference: SU 28962 71682.

9.5.1.3 Dates

The project started in April 2017 and decommissioning was completed in August 2018.

9.5.1.4 Legal Agreements

The Environment Agency had a lease over private land to access, retain and operate the assets.

9.5.1.5 Annual maintenance

The total hydrometry costs were £4,370, and there could be additional costs for other service providers.

9.5.1.6 Costs

Total decommissioning costs were £108,000, including Environment Agency staff costs, site works costs, construction design management (CDM) costs and legal fees to surrender the lease.

9.5.1.7 Overview

The main stages in the process were to:

- engage with internal Environment Agency Estates and legal departments to understand the position regarding the asset and how to move forward
- investigate the asset's net book value on the Environment Agency's fixed asset register
- discuss options with the client (in this case Water Resources) and agree the scope of works
- engage with the National Environmental Assessment Service (an Environment Agency internal team that assesses environmental risk and opportunities on its projects) and the Environment Agency Fisheries Biodiversity and Geomorphology (FBG) team that provides technical advice with regards to risks and benefits associated with weir removals, to ensure that maximum biodiversity and hydromorphological benefits are secured
- discuss and agree scope of works with landowner
- write the business case for approval (using the Five Case Model)
- tender for a contractor to carry out the works
- make the working area safe for contractors (tree felling)
- carry out decommissioning and demolition works
- complete a site visit with landowner before demobilisation
- determine the lease early by deed of surrender

Documents/guidance used to inform the process followed the:

- fixed assets register – Environment Agency internal document recording all Environment Agency assets, details of the assets, including age and condition and 'correct value'
- form I – Environment Agency internal form used to obtain approval to dispose of an asset
- OI 359_18 FCRM asset decommissioning – Environment Agency internal guidance document for the decommissioning/disposal of assets

9.5.2 Legal and regulatory framework

In order to surrender the lease, the Environment Agency had to reinstate the land to its original state, or an alternative set up, as agreed with the landowner. This meant that until engagement with the landowner began the full scope of works could not be fully determined.

The Environment Agency had permissive powers to get on site and do the works required. However, if the proposal was not agreed with the landowner and the landowner was not prepared to surrender the lease, the Environment Agency would have still been left with a lease and ongoing responsibility, including the requirement for Public Safety Risk Assessments.

9.5.3 Environmental and sustainability factors

When the weirs were removed, the main weir removal left a significant void in the river bed which needed rectifying. A reinstatement method was agreed with advice and guidance from the Environment Agency's FBG team. Straw bales were installed downstream to reduce the risk of fine sediment, with advance notice given of the upcoming works to the fishery downstream.

The timing of tree felling was impacted by bird nesting season, therefore affecting timescales for the entire project.

9.5.4 Flood and coastal erosion risk management

None.

9.5.5 Finance and funding

The initial proposed budget (£50,000) was not enough for the works required to achieve the main outcomes. This was communicated to the Client and Programme Manager and additional funds were made available. However, compared to other weirs, these were quite small. The client now has a clearer idea of the costs associated with the demolition/ decommissioning of weirs.

9.5.6 Stakeholder engagement

The main stakeholders involved in the process were:

- the landowner of the site (private individual)
- Thames Water - as access was required through a sewage treatment works site and for use of welfare facilities
- the Environment Agency Hydrology and Water Resources teams
- the Environment Agency Fisheries Biodiversity and Geomorphology (FBG) team

The landowner was unavailable for the first site meeting and asked a representative to attend in his place. This all went well until after the first phase of works (tree felling) as he did not feel his expectations reflected those agreed with his representative. To ensure there were no further conflicting expectations, a second meeting was held before the second phase, which the landowner himself attended. Prior to the meeting, the landowner was given the risk assessment and method statement for the main works. This meeting improved relations with the landowner and allowed him to address any concerns he had with the method statement and the desired outcomes.

9.5.7 Health and safety

Risk of falling trees: A decision was made as a project team to have a number of trees felled to create 2 safe working areas around the weirs and a safe access between the two.

Ground conditions: The ground conditions at this site were very soft. As a result, not all plant could safely access the site. Alternative methods with smaller plant vehicles were required for some of the works.

9.5.8 Continuous review

When the cost for felling the trees to make the working areas safe was first received, the project was briefly reconsidered. However, it was concluded that the risk from the trees would not change. If anything, it would only increase as the more trees that fall down, the more vulnerable the remaining trees are to the wind. The requirement to do the decommissioning work in the future at the end of the lease term would remain if it was not done straightaway. As a result, the decision was made to continue with the project as the Environment Agency could not retain an asset where it is unsafe to carry out duties such as conducting Public Safety Risk Assessments.

9.5.9 Successes

The main project successes were that:

- weirs were successfully removed, allowing renaturalisation of the stream channel and opening up 5km of chalk stream to fish passage
- the lease was determined early by the landowner so there is no ongoing liability to the Environment Agency
- there were internal successes within the Environment Agency: working as ‘one team’ across Water Resources, FBG, hydrology and telemetry (H&T), Estates and National capital programme management service (NCPMS) to achieve the deliverables of the project on time and within budget

9.5.10 Lessons learnt

The main lessons learnt were:

- ensure all site visits are carried out with the landowner, not just a representative, and followed up in writing to avoid potential for miscommunication or misunderstanding of objectives
- early engagement with the project manager is important to ensure the client has an accurate understanding of the costs of the project and realistic timescales to ensure their bidding process is as effective as possible
- early engagement with internal estates and legal teams is important to understand options and rights ahead of engaging with important stakeholders
- early engagement with FBG better informs the project team of potential environmental risks and opportunities
- it is important to define a clear scope of works detailing exactly what is to be decommissioned, demolished and removed from the site to enable efficient engagement and implementation
- a lack of accurate asset drawings posed problems - asset drawings were sourced, but they did not show sheet piling that was uncovered during demolition of the weir

- the amount of concrete used to construct the weirs was also far greater than anticipated
- time must be taken to fully understand on site risks - this concerns site visits and construction works - time must also be allowed to establish the safest way to move forward to achieve project objectives

9.5.11 Author

Gemma Sampson, Project Manager, Environment Agency.

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List of abbreviations

ADA	Association of Drainage Authorities
CAMC	Creating Asset Management Capacity
CDM	Construction (Design and Management)
CIRIA	Construction Industry Research and Information Association
CLA	Country Land and Business Association
Defra	Department for Environment, Food and Rural Affairs
EFTEC	Economics for the Environment Consultancy
EIA	Environmental impact assessment
FCERM	Flood and coastal erosion risk management
FDGiA	Flood defence grant in aid
HRA	Habitat regulations assessment
ICE	Institution of Civil Engineers
IDB	Internal drainage board
IDD	Internal drainage district
LLFA	Lead local flood authority
MMO	Marine Management Organisation
NGR	National Grid reference
NFU	National Farmers' Union
NPPF	National Planning Policy Framework
NRW	Natural Resources Wales
PPW	Planning Policy Wales
PSCA	Public Sector Co-operation Agreement
R&D	Research and development
RBMP	River basin management plan
RFCC	Regional Flood and Coastal Committee

RMA	Risk management authority
SAC	Special Area of Conservation
SEP	Stakeholder engagement plan
SMP	Shoreline management plan
SOP	Standard of protection
SSSI	Site of Special Scientific Interest
UKCP	United Kingdom Climate Projections
WG	Welsh Government
WFD	Water Framework Directive

Glossary

The following provides a glossary of main terminology used throughout this document in the context of asset transfer and asset decommissioning:

Asset	Within FCERM, these are usually categorised as either structures (for example, sluices, pumping stations) or defences (for example, channels, walls, embankments) (Environment Agency, 2018b).
Benefit-cost ratio	The present value of benefits divided by the present value of costs.
Coastal squeeze	The loss of natural habitats or a deterioration in their quality caused by man-made structures or human activity. Coastal squeeze prevents these habitats from migrating towards land (transgressing) in response to rising sea levels
Decommissioning	The administrative, technical and physical actions taken to allow the full or partial demolition in a planned way of an asset, or abandonment of an asset (for example, ceasing maintenance of an asset previously carried out under permissive powers). The transition from operation to decommissioning normally includes any stage of care and maintenance, site remediation and restoration.
'Do/Doing something different'	A change from the current asset management approach to something else. In the context of this document, this involves the decommissioning or transfer of the asset(s).
Engagement	A process of ongoing dialogue with those individuals or groups who have a role to play in the process of decommissioning or transfer. It includes those who are affected by these actions, such that engagement in this context may help shape the detail and direction of a process or solution.
FCERM system	A collection of individual assets that work together to provide flood/coastal erosion risk management in a geographical area.

Liable	To be legally responsible for an asset(s) and be subject to repercussions if obligations (for example, maintenance) are not performed.
Managed realignment	A process to establish a new defence line (usually set back from the existing position), to improve the long-term sustainability of a defence, or help achieve other aims such as habitat creation. This may also simply be realignment to high ground, with no new defence asset to replace that being decommissioned.
Operator	Either a risk management authority (RMA), which could be the Environment Agency, Natural Resources Wales, water companies, a lead local flood authority (LLFA), a district council, a highways authority or an Internal Drainage Board (IDB), or a private owner or occupier.
Standard of protection	The extreme event return period above which significant damage and possible failure of flood or erosion defences could occur. It can be expressed in terms of ‘1 in X year return period’ or as ‘annual probability of exceedance (%)’.
Standard of service	The adequacy of defence afforded to a specific area from flooding or erosion, measured in terms of the extreme event that could cause the defence to fail or cease to function effectively. It is normally associated with a particular epoch, or date (for example, 2019 or 2050) and is expressed in terms of ‘1 in X year return period’ or as ‘annual probability of exceedance (%)’.
Transfer	The act of moving the ‘responsibility’ from one party to another (or where the new operator is already legally 'responsible' for an asset, of reconfirming that responsibility). In this context, an asset transfer could involve: handover of the asset maintenance, from the current operator to a new operator and/or landowner (including when the current operator decides to cease maintenance it has previously carried out under permissive powers)

	sale of the asset and/or sale of the land for a fee from the current operator to a new operator (to a willing buyer)
Uneconomic	An uneconomic asset is defined as one where the present value of the economic benefits of ongoing activity are less than the present value of the costs, so the overall benefit-cost ratio is less than one.

Appendix: Additional information

The following list is not exhaustive and denotes main policies or plans to review when considering transferring or decommissioning an FCERM asset:

1. Flood risk asset management plan. Describes the Environment Agency's approach to the management of flood and coastal risk assets that reduce the risk of flooding.
2. Flood risk management plans (2015 to 2021). Set out how organisations, stakeholders and communities will work together to manage flood risk.
3. River basin management plans (2015 to 2021). Statutory plans setting out the actions to be taken to meet the requirements of the EU Water Framework Directive, and setting out how organisations, stakeholders and communities will work together to improve the water environment.
4. Shoreline management plans (SMPs). Provide information on the future extent of coastal flood and erosion risk. They consider the range of feasible shoreline management scenarios for each area and their impact in shaping the coastline to select preferred policy over the next century. In some cases, this identifies that areas currently protected by coastal defences will no longer be viable or appropriate to protect in the medium to long term (policy will move from ‘hold the line’ to ‘no active intervention’).
5. National flood and coastal erosion risk management strategy for England 2020. Provides the overarching framework for future action by all risk management authorities to tackle flooding and coastal erosion in England.
6. National Planning Policy Framework (NPPF) 2019. Sets out the UK government's planning policies for England and how these are expected to be applied, including requirement to define Coastal Change Management Areas.
7. The Environment Agency’s approach to groundwater protection February 2018 Version 1.2. Describes how the Environment Agency implements UK government policy for groundwater and adopts a risk-based approach where legislation allows.
8. Government policy: Climate change – second national adaptation programme (2018 to 2023). Includes what the UK government is doing to make sure the UK is prepared for the potential impacts of climate change.
9. Government policy: waste and recycling. Describes how the UK government is working towards a zero-waste economy by supporting the reduction, reuse and recycling of waste, and controlling hazardous waste.
10. Mission 2020 sustainability plan/Carbon planning tool. Provides a mechanism for assessing carbon over the whole life of built assets.
11. 25 Year Environment Plan. Details how the UK government will work with communities and businesses to improve the environment.
12. Flood and coastal erosion risk management partnership funding, April 2020. Defra policy on an outcome-focused, partnership approach to funding flood and coastal erosion risk management capital schemes.
13. The Canal & River Trust Asset Management Policy July 2017. The policy applies to all asset-related activities (wherever carried out in the Trust), including

inspection, maintenance, refurbishment and renewal of existing assets and the design and installation of new assets to enhance our waterways and towpaths.

14. National Trust Shifting Shores policy framework 2015. Adaptive, natural process-based approach to shoreline management, an approach that takes a long-term view and works with stakeholders along the way.
15. The National Strategy for Flood and Coastal Erosion Risk Management in Wales (2020). Sets out policies on flood and coastal erosion risk management.
16. Natural Resources Policy (2017). Produced by the Welsh Government and sets out the priorities, risks and opportunities for managing natural resources sustainably. The policy takes into account the findings of the State of Natural Resources report.
17. Planning Policy Wales (PPW) (Edition 11, Feb 2021). Sets out the land use planning policy for Wales. Underpinned by a series of technical advice notes.
18. Technical Advice Note 15: Development and Flood Risk (July 2004). Supplements the policy set out in Planning Policy Wales in relation to development and flooding.
19. Technical Advice Note 14: Coastal Planning (1998). Supplementary guidance to Planning Policy Wales on important issues relating to planning for the coastal zone.
20. Climate Change Risk Assessment for Wales. Report produced as part of UK Climate Change Risk Assessment (required under S56 of Climate Change Act). Presents a national assessment of potential risks and opportunities.
21. Adaptation Delivery Plan: Climate Change Strategy for Wales. Addresses strategic actions to help Wales cope better with impacts of climate change, including around infrastructure.
22. Adaptation Framework. National approach to understand the risks and opportunities from climate change to ensure Wales is well placed to adapt in a sustainable way.
23. Adapting to Climate Change: Guidance for Flood & Coastal Erosion Risk Management Authorities in Wales. Guidance to ensure an economically credible appraisal that considers the uncertainties of climate change is made to support FCERM investment decisions – includes adaptive management. Intended to be complimentary to the new Business Case Guidance for Projects (FCERM).

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