

Oath to Burrowbridge Dredging

Volume 1: Non-technical Summary of Environmental Statement

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Parrett Internal Drainage Board

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1 INTRODUCTION

1.1 This non-technical summary describes the findings of an Environmental Impact Assessment (EIA) which has been carried out to assess the likely significant effects of the proposed dredging scheme (Improvement Works) for the River Parrett. It provides a description of the existing environment, the proposals, the likely environmental impacts and the measures which will be implemented to avoid or reduce these impacts. This non-technical summary is available to view both as a stand-alone document, and as part of the Environmental Statement which provides a comprehensive record of the EIA.

2 BACKGROUND

2.1 The proposed Improvement Works is part of ongoing work associated with the 20 Year Flood Action Plan being implemented by the Somerset Rivers Authority. It is being carried out for the Somerset Rivers Authority by the Parrett Internal Drainage Board using Growth Deal funding from the Heart of the South West Local Enterprise Partnership.

2.2 The scheme has the potential to reduce the flood risk to up to 65km² of land and up to 200 properties, reducing both the area of land affected, and the length of time it would be flooded. This would be evident at Aller Moor, King's Sedgemoor, Moorlinch, Mulchelney Level, Huish Level, Wet Moor, King's Moor, and Witcombe Bottom. The general area of the works is shown below in Figure 1.

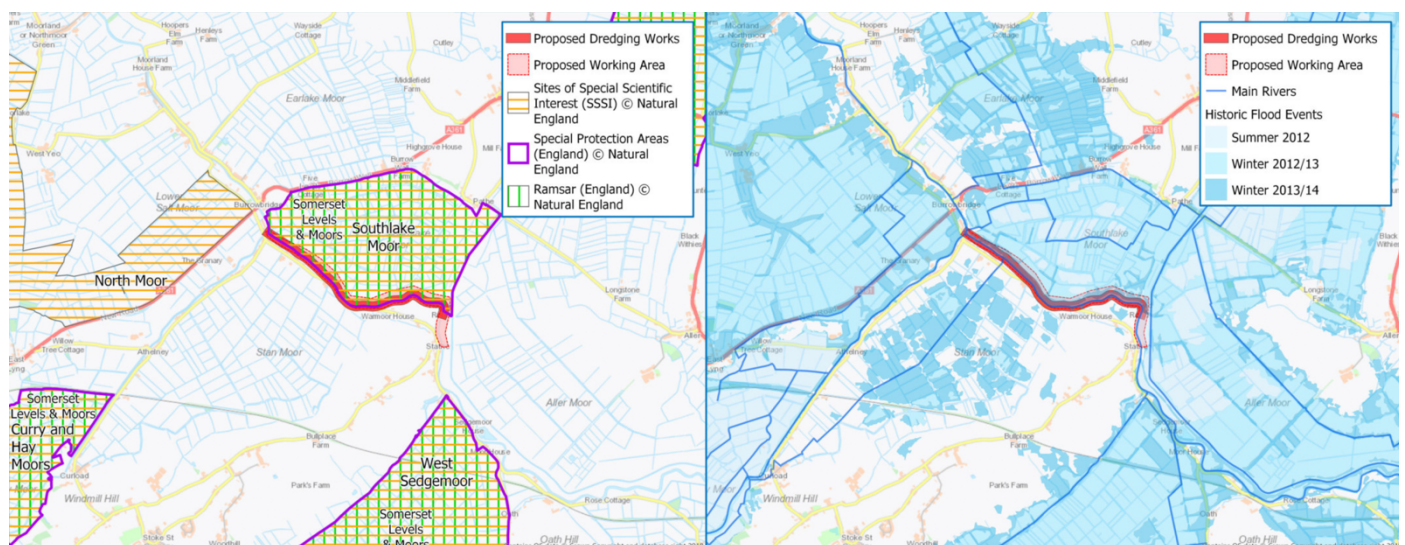


Figure 1. Proposed Dredging Works, Historic Flooding and Sensitive Habitats

2.3 Following extensive flooding during the winter of 2013/14, dredging has been carried out every year on sections of the River Parrett downstream from where the Rivers Parrett and Tone meet at Burrowbridge. This dredging work has been undertaken by either the Environment Agency or the Parrett Internal Drainage Board for the Somerset Rivers Authority (as shown in Figure 2) and means that during future flooding, significantly less land will be affected for significantly less time.

3 PROJECT DESCRIPTION

- 3.1 The scheme involves dredging 2.2km of the River Parrett from Stathe Bridge to where the Rivers Parrett and Tone meet at Burrowbridge (as shown in Figure 3). Approximately 22,000m³ of silt, almost enough to fill nine Olympic sized swimming pools, will be dredged from the upper bank of the River Parrett. This will be taken from sections along 86% of the length of the right-hand bank (looking downstream from Stathe Bridge to Burrowbridge) and 18% of the left-hand bank using long-reach excavators. The dredged silt will be placed on the landward side of the right-hand bank and graded before being re-vegetated. Figure 4 provides an example cross section of these works.
- 3.2 This was one of several locations identified and assessed as having the potential to reduce the severity of flooding for surrounding communities. This location was subject to further focused assessments which determined the scheme to be the optimal solution to provide improved flow conveyance and deliver improved flood risk benefit, with works due to commence in August 2019 and lasting for 8-12 weeks.
- 3.3 The outcome of this scheme will be a greater volume of floodwater (conveyance) will be able to flow down the River Parrett – this will reduce flood risk upstream of this location. This increased conveyance of flood water down this stretch of the River Parrett will have limited implications for other areas and other environmental considerations. However, due to the sensitive nature of the local area, it was determined that a formal Environmental Impact Assessment was necessary to investigate all possible significant effects. This would help refine the scheme design and ensure inclusion of suitable methods to minimise negative effects and promote positive effects.

4 LEGISLATIVE REGIME

- 4.1 The proposed scheme is considered improvement works under Regulation 2(1) of the Environmental Impact Assessment (Land Drainage Improvement Works) Regulations 1999 (as amended). As the Parrett Internal Drainage Board is initiating the improvement works it is the body responsible for satisfying the formal process of examining the improvement works in accordance with these Regulations.
- 4.2 These improvement works are a development activity which do not require planning permission as they are classed as permitted development under Class D of Part 13 (water and sewerage) of Schedule 2 to the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended).
- 4.3 Placement and deposition of dredged silt will be undertaken in accordance with the Environmental Permitting Regulations 2010 (as amended) and will be carried out under a D1 and U1 waste exemption.

- 4.4 The proposed scheme is partly located within the boundary of the Southlake Moor Site of Special Scientific Interest (SSSI) and has the potential to impact other SSSIs including Curry and Hay Moors SSSI and West Sedgemoor SSSI. This means the works require SSSI Assent from Natural England before they can be carried out. These works would also require a Habitats Regulations Assessment (HRA) under the Conservation of Habitats and Species Regulations 2017, as the works also affect some of the internationally designated sites which make up Somerset Moors and Levels SPA and Ramsar Site.
- 4.5 As the proposed scheme affects the River Parrett it must also demonstrate that it supports the objectives of the South West River Basin Management Plan (RBMP) as required under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 through the production of a Water Framework Directive (WFD) Compliance Assessment.

5 CONSULTATION

- 5.1 Extensive consultation was undertaken with a range of stakeholders including Environment Agency and Natural England specialists, Somerset Wildlife Trust, the South West Heritage Trust, the Royal Society for the Protection of Birds (RSPB), the Inland Waterways Association, the Flooding on the Levels Action Group (FLAG), local authorities, parish council and the general public. A scoping document was sent to the key stakeholders detailing the project and the approach for the EIA. A period of initial public consultation was held between 1st May 2019 and 1st June 2019 with two drop-in sessions on the 14th and 15th May 2019 to inform members of the local community and give them an opportunity to discuss the proposals with the project team. The final scope of the assessment was then determined by the PIDB.
- 5.2 The final design was reviewed following this extensive consultation and highlighted issues were assessed and measures identified to avoid or mitigate them as required as part of the EIA process.

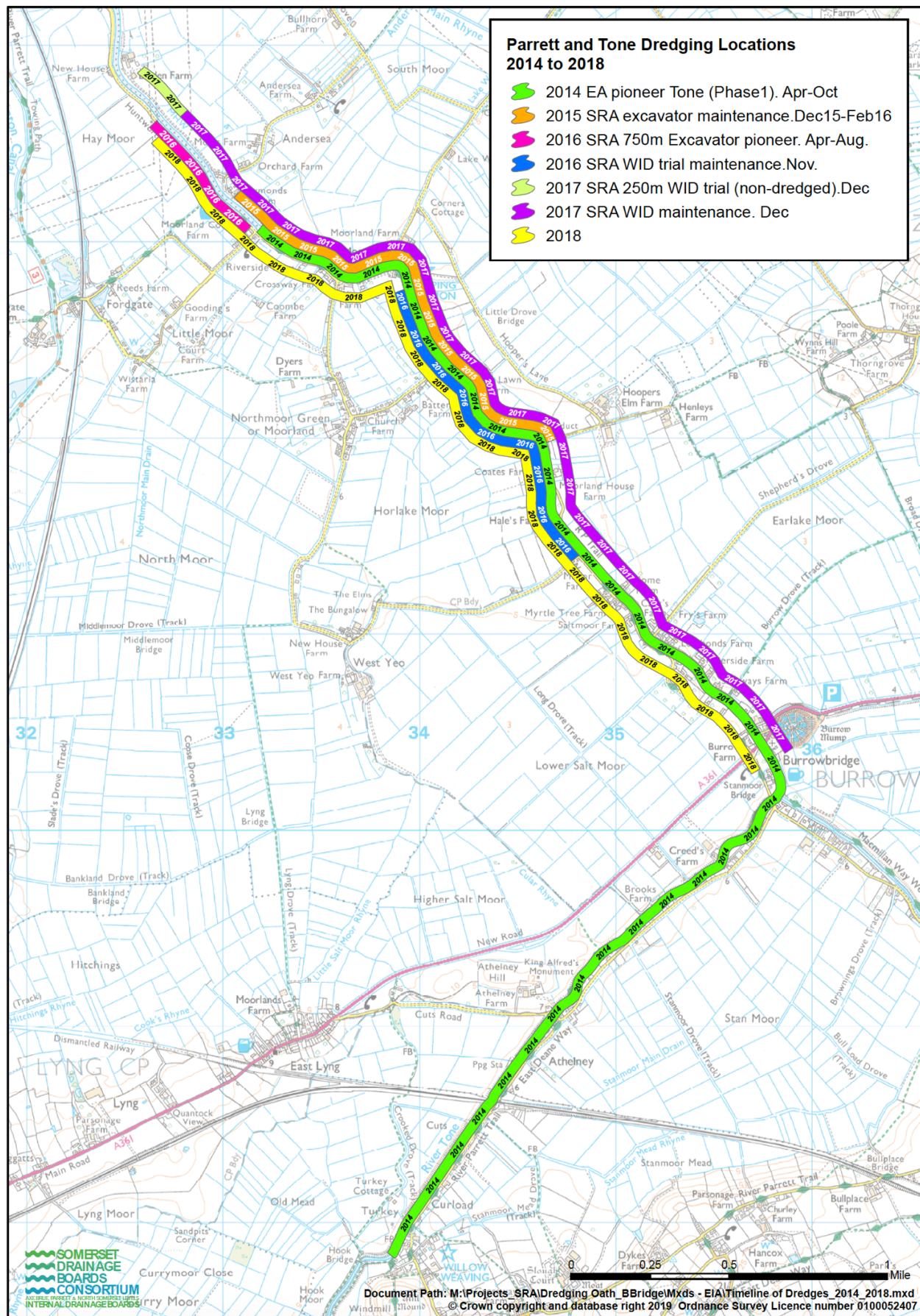


Figure 2: Parrett and Tone Dredging Locations 2014 to 2018

- 6.2 The assessment also considered whether the effects of the project would act in combination with other known plans and projects to generate cumulative impacts.

7 SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION

- 7.1 The assessment considered how changes to the existing environment caused by both construction and operation of the scheme would affect environmental receptors. The significance of the effects was assessed by taking into account the predicted magnitude of the effects and the relative sensitivity of the receptors affected. The assessment also considered appropriate mitigation and enhancement measures that would need to be implemented to reduce or prevent significant negative environmental impacts and promote positive effects.
- 7.2 The assessment has concluded that there are no significant effects identified for Biodiversity, the Water Environment, or Population associated with the proposed scheme, either alone or in combination with other known plans and projects. This conclusion was based on the measures identified, delivering a wide range of specific and strategic mitigation measures (agreed between the PIDB, the Environment Agency and Natural England) and supported by ongoing monitoring and management.
- 7.3 A summary of the main potential impacts and key integrated and additional mitigation measures is given in the following sections – please note that some mitigation measures address multiple impacts across multiple sections.

8 BIODIVERSITY

- 8.1 The potential impacts of the project on protected habitats and species mainly relate to disturbance of wintering water-birds and short-term changes in water quality which may affect fish and insects during the dredging works themselves. Changes to water levels in some of the protected areas could affect how suitable the habitat is for some protected species of bird and insect. Whilst the sensitivity of the protected habitats and species to these changes is high, following a Habitats Regulations Assessment the magnitude of the changes has been determined to be low enough that it is not considered to be significant.
- 8.2 Mitigation measures identified include:
- 8.2.1 The sections of the River Parrett to be dredged have been targeted to ensure as much high-value habitat is kept as possible and following the dredge these sections will be enhanced to provide good quality habitat for protected species. Twice the length of ditch and hedge lost will be created and planted following completion of the works.
- 8.2.2 All dredging work will be carried out in a single working season to limit the amount of time that the dredging directly affects protected habitats and species, and avoids the breeding season for birds and other sensitive species. It will be carried out in line with

best practice and under professional supervision.

- 8.2.3 Where necessary, post dredge water levels will be controlled in protected habitats using existing water management structures (including some refurbishment works) and by varying existing protocols for their operation. These measures have been agreed with the PIDB, Natural England and the Environment Agency who would implement these measures. Monitoring will take place for populations of, or habitats for, key species such as water vole, hairy click beetle, and fish.

9 THE WATER ENVIRONMENT

- 9.1 The main benefit of the scheme is to improve flood risk for up to 65km² of land and up to 200 properties by reducing the amount of land affected as well as the amount of time it is flooded on Aller Moor, King's Sedgemoor, Moorlinch, Mulchelney Level, Huish Level, Wet Moor, King's Moor, and Witcombe Bottom. The potential impacts of the scheme on the water environment affect a wider area than those identified in the Biodiversity section above, extending both upstream and downstream from the project location. Under some circumstances during construction there is some potential for silt to be disturbed and it could be carried downstream where it may affect the quality of bathing waters. Following construction there will be less splash flooding in low risk flood events in some areas protected for their valuable habitats and the animals and birds they support. The scheme will have benefits for the management of the water environment as more water flowing down the River Parrett may reduce the amount of silt deposited by the tide. Following implementation, in the absence of mitigation, there is the potential for a small reduction in the existing flood risk benefits from works already implemented to a limited number of properties and land on Curry Moor.

- 9.2 Measures identified include:

- 9.2.1 The sections of the River Parrett that are being dredged have been targeted to ensure as much high-value habitat is kept as possible, and following the dredge these sections will be enhanced to provide high quality habitat for protected species. Risks to bathing water quality will be minimized through timing the works to avoid the main bathing season and by preventing grazing animals from accessing the dredged sections both during the dredge, and for one year following completion.
- 9.2.2 All dredging work will be carried out in a single working season to limit the amount of time that the dredging directly affects protected habitats and species; and will be carried out in line with best practice and under professional supervision in sensitive sections.
- 9.2.3 Following the completion of dredging work water levels will be controlled in protected habitats to avoid any changes to water depth and duration using existing and refurbished flood management structures and changes in operational protocols.

This has been agreed with the PIDB, Natural England and the Environment Agency who would be responsible for implementing these measures.

- 9.2.4 If required, additional temporary pumping will be deployed at Curry Moor pumping station until the capacity of the River Sowey is increased through a Somerset Rivers Authority project that is being implemented and forms part of the 20 Year Flood Action Plan.

10 POPULATION

- 10.1 The main benefit of the scheme is to improve flood risk for up to 65km² of land and up to 200 properties by reducing the amount of land affected as well as the amount of time it is flooded on Aller Moor, King's Sedgemoor, Moorlinch, Mulchelney Level, Huish Level, Wet Moor, King's Moor, and Witcombe Bottom. In doing so there will be some limited reduced benefits within Curry Moor which will be offset by additional temporary pumping and completion of the Somerset River Authority project to increase the capacity of the Sowey system.

- 10.2 Measures identified include:

- 10.2.1 If required additional temporary pumping will be deployed at Curry Moor pumping station until the capacity of the River Sowey is increased through a Somerset River Authority project that is being implemented and forms part of the 20 Year Flood Action Plan.

11 CONCLUSIONS

- 11.1 The proposed scheme will be delivered by the Parrett Internal Drainage Board and will be implemented on a 2.2km stretch of the River Parrett between Stathe Bridge and Burrowbridge. This scheme is seen as the optimal solution to provide improved flow conveyance and deliver improved flood risk benefit. The scheme will result in the dredging of 22,000m³ of upper bank sediment from 18% of the left-hand bank and 86% of the right-hand bank, with the sediment placed and graded on the outer right-hand bank, before being re-vegetated.
- 11.2 A number of potential environmental impacts were identified as part of the EIA, but these have been avoided through changes in the scheme design and any remaining effects will be managed so that any that do occur are minimised to non-significant levels.
- 11.3 These environmental measures will be implemented during the works and in the following years (supported by monitoring) to ensure no degradation of habitat (and wildlife), water quality, property, land and infrastructure.