

Cardiff Coastal Defences - Saltmarsh Management Plan

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Abréviations

CEMP	Construction Environmental Management Plan
EIA	Environmental Impact Assessment
SAC	Special Area of Conservation
SMP	Saltmarsh Management Plan
SSSI	Site of Special Scientific Interest
NRW	Natural Resources Wales

1 Introduction

1.1 Purpose of the Saltmarsh Management Plan

This Saltmarsh Management Plan (SMP) sets out the management approach, as agreed during consultation with Natural Resources Wales (NRW) for protection of the saltmarsh at the mouth of the Rhymney River and Severn Estuary to the east of Cardiff City Centre during the works to upgrade the flood defences at this location.

This version of the plan has been developed to protect the areas of saltmarsh during final ground investigation works prior to the main works taking place.

This management plan has been identified as essential mitigation within the Environmental Impact Assessment Report (EIA Report) and details other essential mitigation identified to avoid or minimise effects on the saltmarsh. Much of the proposed works and the surrounding saltmarsh habitat fall within the Severn Estuary Special Area of Conservation (SAC) and border the Gwent Levels Site of Special Scientific Interest (SSSI).

1.2 Aim of the Saltmarsh Management Plan

The aim of the Saltmarsh Management Plan in this phase of the works is to ensure that no works temporary or permanent take place within the saltmarsh and to protect the habitat from indirect impacts.

This will include pre- and post-construction monitoring and identify points at which intervention may be required. This plan is a live document which will be updated throughout the construction period. The plan will ensure that essential mitigation strategies required for safeguarding protected species and habitats are implemented as part of the contract.

This Management Plan will be included as an annex to the Construction Environmental Management Plan (CEMP) which will be developed by the Contractor prior to construction.

2 Summary of the Scope of Works

2.1 Site Location and Description

The proposed development comprises new fluvial and coastal flood defences along both banks of the River Rhymney on the outskirts of Cardiff from where the A4232 crosses the river down to the confluence between the river and the Severn Estuary. The defences will then extend along the Severn Estuary coastline, east and west from the River Rhymney. This area includes the DCWW Cardiff East WWTW and northwards along the eastern extent of the Lamby Way landfill site (see Figure 2-1).

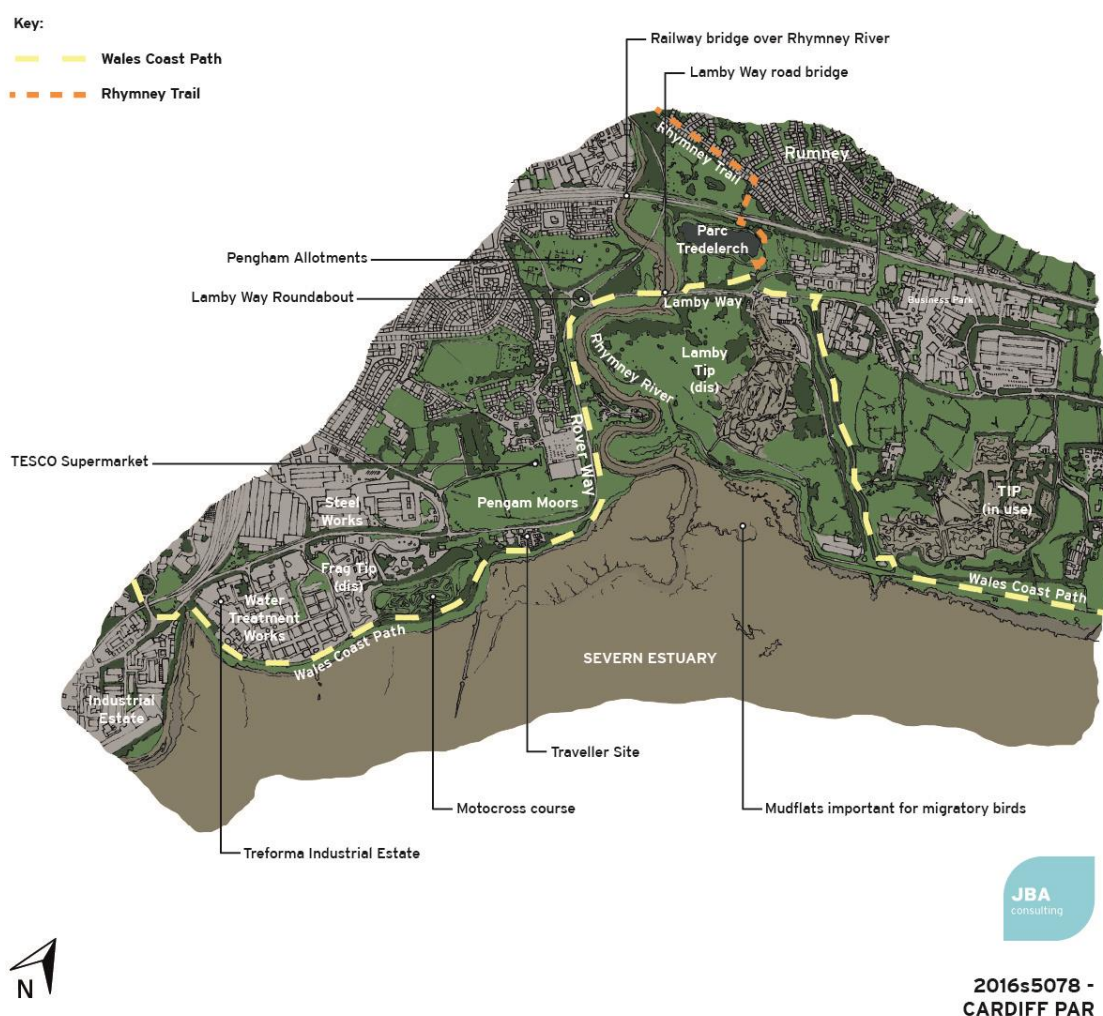


Figure 2-1. Location of Rhymney River and its confluence into the Severn Estuary with key features.

3 Pre-Construction Actions

The following conditions regarding the saltmarsh have been put in place during the planning process and the actions undertaken to date are detailed.

P1.1 - Confirm extents of valuable and sensitive saltmarsh habitat for future monitoring/ comparison. P1.2 - Conduct walkover survey to identify areas of erosion/accretion.

A site survey was undertaken on the 6th of November 2023 by Jonathan Harrison and Hannah Webster of JBA consulting and the current extent of the saltmarsh was determined. To more accurately map the western boundary of the saltmarsh Knights Brown took GPS points with the supervision of an ecologist in April 2024. The updated map is shown in Appendix A

P1.3 - Ensure mitigation of temporary works impacts is agreed. This should involve the production of a temporary works methods statement detailing mitigation measures for saltmarsh. This should also include details of the type of track matting to be used, the length of tracks required, and plant to be used on top of areas of saltmarsh.

The temporary works will encroach into the saltmarsh in one location, between locations 42 and 52. Machinery will track between these locations under the road bridge. This distance is approximately 180 metres.

The saltmarsh community between areas 42 and 52 consists of SM24. The vegetation is typically species poor and is dominated by Sea Couch *Elytrigia atherica*. In the areas that will be impacted by the proposed haul route the vegetation is species poor with terrestrial grassland species and bare ground present. Since the original survey it appears that grazing pressure from horses has increased, and bare ground is predominant throughout most of the community.

Vehicle access routes will be restricted to single routes, clearly fenced off to stop multiple routes that will impact on the Saltmarsh. Any access routes across any identified saltmarsh will be formed using aluminium track ways placed on top of the existing ground at low tide.

Plant that will likely utilise this temporary access will be items such as (but not limited to):

- Articulated Dump trucks up to 30T
- Dumpers up to 9T
- Rollers up to 26T
- Tracked excavators up to 50T.
- Dozer (D8/D6/D4)
- 8-wheeler tipper lorries
- Telehandler up to 20T

- Site vehicles, such as transit tippers, 4x4 pick-up trucks

The site speed limit is 10mph.

P1.4 - Baseline invertebrate survey should be conducted to inform post-works monitoring – including Shrill Carder Bee.

A baseline invertebrate survey to include the Shrill Carder Bee was completed between April and August 2024. It did not record Shrill Carder Bee throughout the scheme area. Habitats suitable for Shrill Carder Bee were identified outside of the scheme area and these will be protected.

A number of other pollinator species were recorded in the main saltmarsh, however, this area will not be impacted by the works and has already been demarcated with temporary fencing by the ECoW. No works will be permitted in this area.

No pollinator species were recorded in the area of saltmarsh that will be impacted upon by the works. Likely due to a complete lack of flowering plant species.

P1.5 - A baseline rare plant species survey should be completed in the summer months prior to construction.

An updated NVC and a rare plant species survey were undertaken in June and August 2024.

The temporary works will not impact upon Annex I saltmarsh and no further rare plant species were recorded within the temporary or permanent works footprint. Further surveys will be undertaken immediately prior to works taking place in a given area.

Saltmarsh impacted by the permanent works has been considered in the IROPI process, and these saltmarsh communities remain the same. Saltmarsh communities adjacent to the working areas will be demarcated and protected.

P1.6 - Review the need for further mitigation measures in the Environmental Statement and habitat losses from temporary works should be revisited to identify further relevant actions.

A review of the Environmental Statement has been completed and no further mitigation measures have been identified.

It is intended that this document will be live throughout the construction period. It will be updated following the relevant baseline surveys and with further mitigation identified. Further enhancement measures will be included if opportunities are identified through the construction period.

4 Saltmarsh Management Plan

Table 4-1. Saltmarsh Management Plan

Ref.	Action	Responsibility	Ref to further information	Progress and further action	Sign off and date
Pre-Construction					
P1.1	Confirm extents of valuable and sensitive saltmarsh habitat for future monitoring/comparison.	Construction Contractor ECoW	Environmental Statement	Completed Updated 12/04/2024	6/11/23 12/04/24
P1.2	Conduct walkover survey to identify areas of erosion/accretion.	Construction Contractor ECoW	Environmental Statement NVC Survey	Completed Updated 6/11/23	6/11/23
P1.3	Ensure mitigation of temporary works impacts is agreed. This should involve the production of a temporary works methods statement detailing mitigation measures for saltmarsh.	Construction Contractor	Environmental Statement	The NVC survey has been completed. Annex 1 saltmarsh has been identified and all temporary impacts avoided. Temporary works will impact SM24 saltmarsh, which does not qualify as a Annex I saltmarsh, however, measures to protect this saltmarsh have been detailed in the CEMP as follows; 'Vehicle access routes will be restricted to single routes, clearly fenced off to stop multiple routes that will impact on the Saltmarsh. Any access routes across any identified saltmarsh will be formed using aluminium track ways placed on top of the existing ground.' As detailed below the ECoW will be responsible for monitoring erosion beneath the tracks.	August 2024
P1.4	Baseline invertebrate survey should be conducted to inform post-works monitoring – including Shrill Carder Bee.	Construction Contractor	Environmental Statement	Survey undertaken. Shrill Carder Bee not recorded. Areas suitable for pollinator species have been identified and will be protected throughout the works.	August 2024

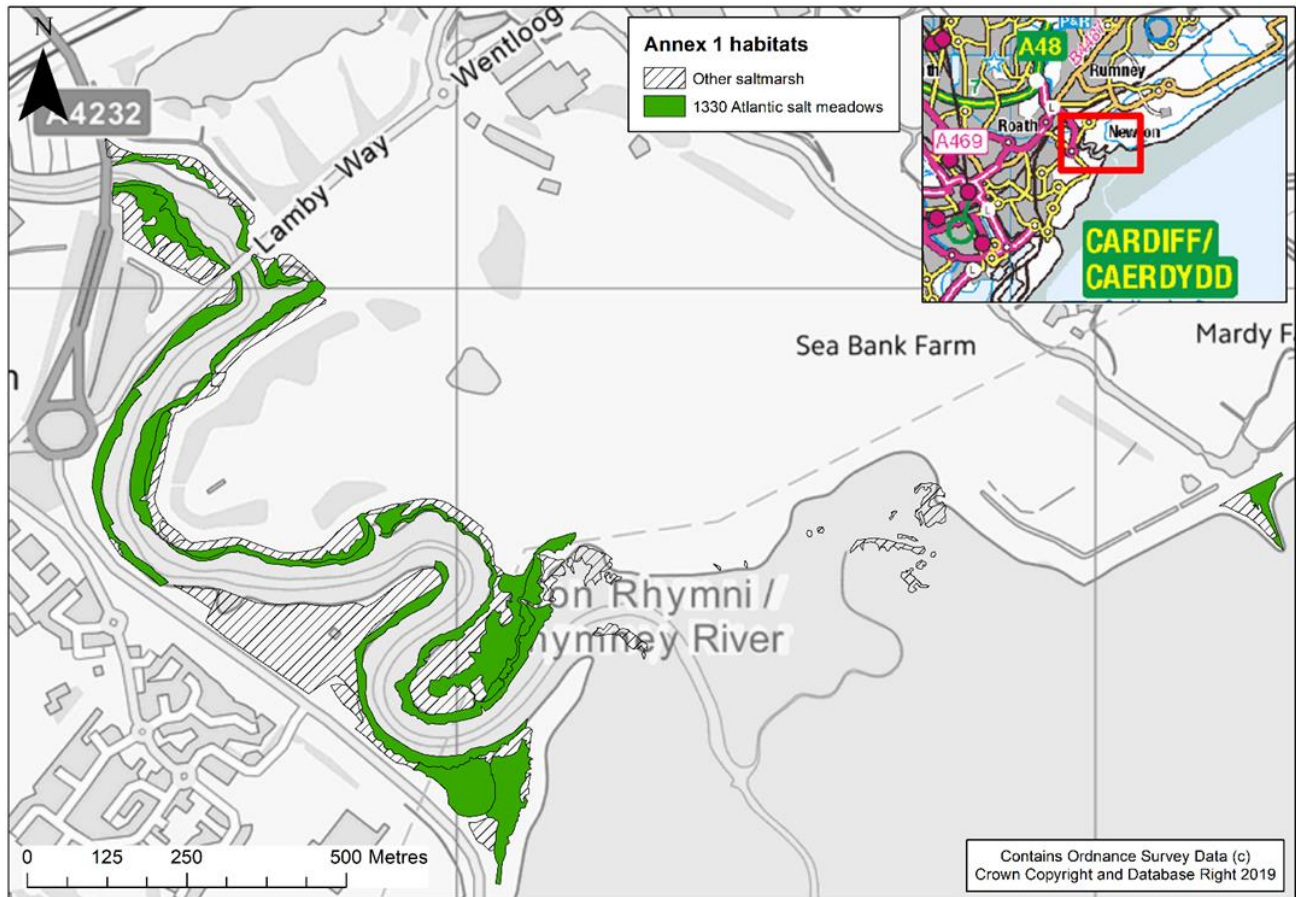
Ref.	Action	Responsibility	Ref to further information	Progress and further action	Sign off and date
P1.5	A baseline rare plant species survey should be completed in the summer months prior to construction.	Construction Contractor	Environmental Statement	Completed along with the NVC. No rare plant species were recorded in areas where temporary haul routes or compounds will be installed. Further surveys will be undertaken yearly throughout the works period.	August 2024

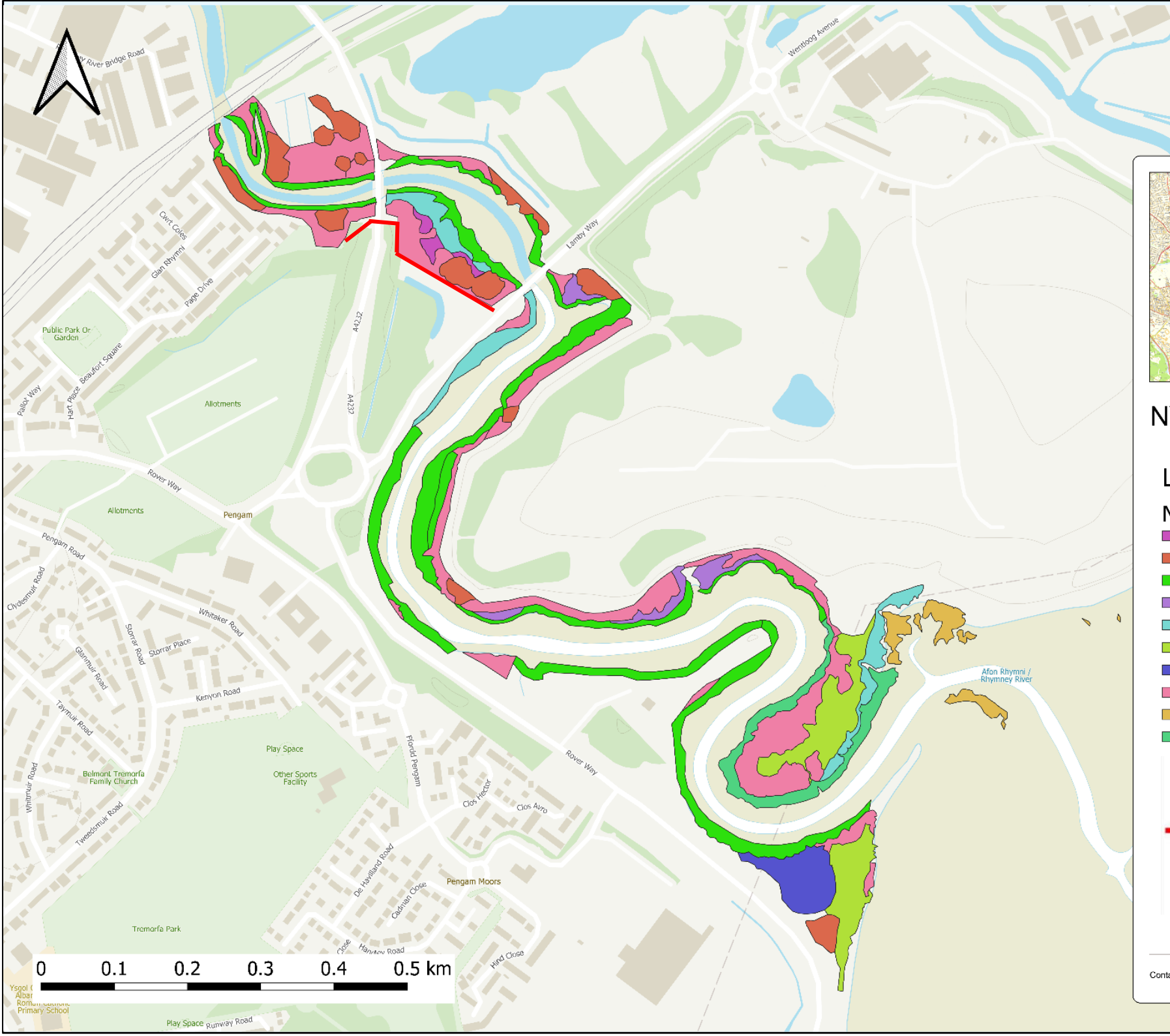
Ref.	Action	Responsibility	Ref to further information	Progress and further action	Sign off and date
During Construction					
C1.1	Presence of a suitably qualified Ecological Clerk of Works (ECoW) is required to ensure that all mitigation measures are implemented.	Construction Contractor ECoW	Environmental Statement	ECoW appointed by Cardiff Council	
C1.2	Best practice construction methods (CIRIA 2015) will be used including the use of appropriate pollution controls (i.e. Guidance for Pollution Prevention (GPPs)), such as construction drainage, a strict re-fuelling protocol and removal of all loose materials from the intertidal area	Construction Contractor	Environmental Statement		
C1.3	Temporary works are limited to an area of SM24 saltmarsh located between location 42 and location 52. All other areas of saltmarsh will be demarcated and no works will be permitted. Aluminium trackways will be placed at low tide between location 42 and 52. Where possible movements will take place in dry conditions, and erosion under the tracks will be monitored by the ECoW. If excessive erosion is identified further restrictions may be put in place.	Construction Contractor ECoW	Environmental Statement		

Ref.	Action	Responsibility	Ref to further information	Progress and further action	Sign off and date
Post Construction (Permanent Works)					
PC1.1	Surveys of the saltmarsh plant species composition will be important to inform the restoration of the saltmarsh and to demonstrate enhancement in the areas of saltmarsh that are retained. Monitoring of rare plant species should be undertaken to inform management practices. This should take the form of a fixed-point quadrat survey to record abundance, as well as an updated NVC survey to record habitat type.	Contractor – survey subsequent two years after completion of works.	Environmental Statement		
PC1.2	Monitoring of saltmarsh post-construction to inform future management practices and enhancement opportunities. Methods and frequency of monitoring to be agreed with NRW, and would likely include surveys of accretion/erosion, grazing pressure etc.	Construction Contractor	Environmental Statement		
PC1.3	Post-construction invertebrate survey to be completed in subsequent years post-construction to inform management practices.	Construction Contractor	Environmental Statement		

A Saltmarsh Maps

A.1 Extent of Saltmarsh





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NVC Communities

Legend

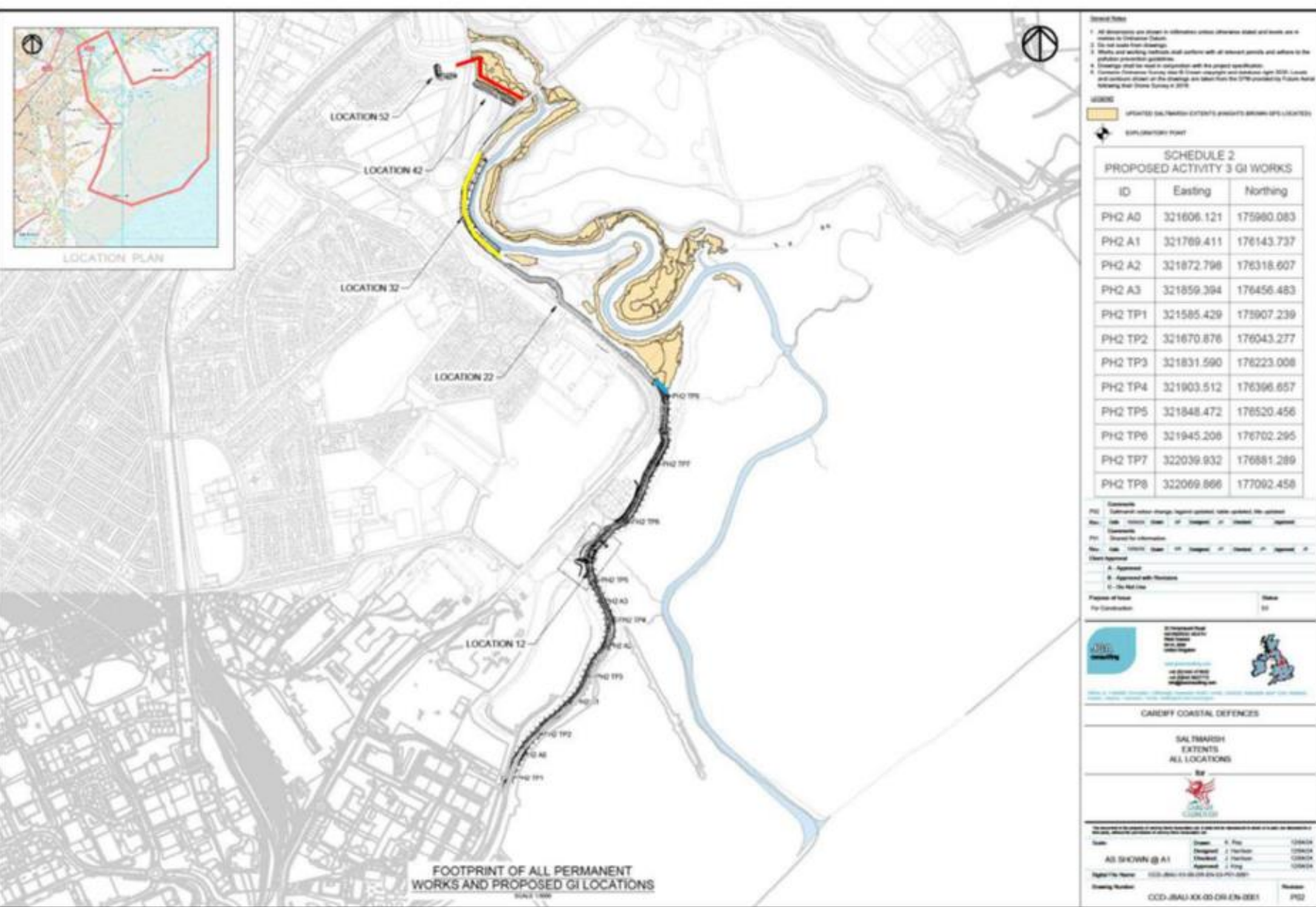
NVC Community

- S21
- S4
- SM12a
- SM13
- SM13a
- SM13c
- SM16c
- SM24
- SM6
- SM6+SM12a

Saltmarsh
protected by track
mats across
location 42 to
access Location
52.

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Saltmarsh protected by track mats across location 42 to access Location 52.

Access within footprint of permanent works.

Access within footprint of permanent works on toe detail. Protection fence will be established to protect boundary between permanent works area and saltmarsh area.

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