

Project Brief

Project name	Cwm Ivy Marsh Managed Realignment
Project 1B1S reference	IMWA001475
National project number	WAS104E/000A/761A
Programme name	National Habitat Creation Programme
Region and Area	SW Wales
Team and location	FORM, AIP , Cardiff
Date	4 nd August 2014
Version number	4
Author	Andrew Basford

Project governance arrangements

Project Sponsor	Jeremy Parr
Programme Board Delegated Responsibility	Rick Park, NHCP Manager
Project Executive	Angela Ellis, Projects Delivery
Project Manager	Andrew Basford, Projects Delivery
Senior Users	FCERM Mark Davies, ASM Technical Specialist Protected Sites/Environmental Kerry Rogers, Environmental assessment advisor KSP
Senior Supplier(s)	TBC

Table of contents

Project Brief history	3
Document location	3
Revision history	3
Approvals.....	3
Distribution.....	3
Project definition.....	4
Background	4
Project objectives	4
Desired deliverables and outcomes	5
Project scope and exclusions	5
Constraints and assumptions	6
Project tolerances.....	7
The user(s) and any other known interested parties	7
Interfaces.....	Error! Bookmark not defined.
Outline Business Case or PAR	8
Project Product Description.....	8
Project approach	8
Project management team structure	9
Role descriptions.....	9
References.....	10

Project Brief

Project Brief history

Document location

This document is uncontrolled when printed. Find source of document on the [Asite Workspace](#).

Revision history

Revision date	Summary of changes	Version number
11/04/2014	First issue	1.0
11/04/2014	Accepted Rick Park's changes - Senior User review	2.0
15/04/2014	Accepted Andrea Winterton's changes – SU review	3.0
04/07/2014	Reviewed by ABasford, Project Manager	4.0

Approvals

This document requires the following approvals. You must file the signed approval forms in the correct part of the project filing system.

Name	Signature	Title	Date of issue	Version
Angela Ellis	AE	Project Executive	04/08/2014	4.0
Rick Park	RP	Programme Board Delegated Responsibility	04/08/2014	4.0
Kerry Rogers	KR	Senior User - Environmental assessment advisor KSP	04/08/2014	4.0
Mark Davies	MD	Senior User - Tech Spec, Asset Sys Management	04/08/2014	4.0

Distribution

This document has been distributed to:

Name	Title	Date of issue	Version
Rick Park	Programme board delegated responsibility		4.0
Angela Ellis	Project Executive		4.0
Kerry Rogers	SU - Environmental assessment advisor KSP		4.0
Mark Davies	SU - Techn Specialist, Asset Systems Management		4.0
Heilyn Williams	EAU Lead		4.0
Phil Pickersgill	Area Flood Risk Manager		4.0
Heidi Pawlin	Procurement Lead		4.0
Mark Hodgkinson	Project Cost Advisor		4.0
Ceri Seaton	Marine and Coastal Physical Scientist		4.0
Mary Youell	Operations Manager SW Wales		4.0
Rebecca Wright	District Team Leader (Protected Sites)		4.0
Andrea Winterton	District Operations Team Manager		4.0

Project Brief

Project definition

Background

Cwm Ivy Marsh is situated in North Gower at Whiteford Burrows near Llanmadoc in the Swansea District. NGR: SS 44218 94051

Cwm Ivy Marsh has been agreed through the NRW National Habitat Creation Programme (by the NRW N2K Area Consultation Group and Operations Manager (SW Wales) as the preferred option for creating compensatory habitat within the Carmarthen Bay and Estuaries SAC. The project would create intertidal compensation habitat that would contribute toward the coastal squeeze habitat loss identified within the Swansea and Carmarthen Bay Shoreline Management Plan. Extensive consultation has been completed, and it is accepted that this is the most suitable site available within the time frame required. Other sites within Carmarthen Bay are being evaluated as options for further short and medium term compensation habitat creation within the SAC.

The problem

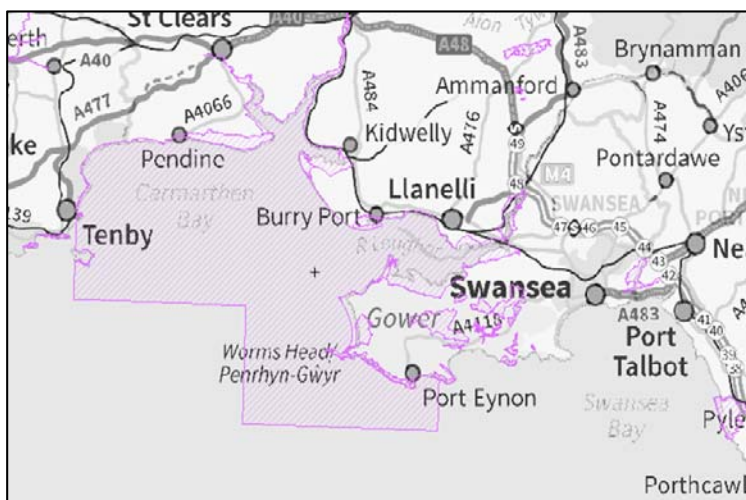
There is an obligation for Welsh Government (and NRW as sponsored body) to create compensation habitat before any potential adverse effects or sea level rise manifest themselves. This is an obligation arising from the Habitat Directive. It should be highlighted that non-compliance with the Habitats Regulations, by failure to maintain the integrity of the Natura 2000 sites by addressing coastal squeeze, could lead to infringement proceedings against the UK Government and would incur reputational risk and significant financial penalties as well as risks to the integrity of the Natura 2000 network in Wales. Compensation habitat is also required to enable the construction of planned coastal flood risk management schemes and the maintenance of existing flood defences within the SAC.

Project objectives

The objectives of this project are to create an estimated 39Ha of salt marsh habitat by 2105 which includes 0.103Ha of compensatory habitat for the Penclawdd FRM. The project would create 18Ha of compensation habitat against the required 59Ha identified within the SMP2 for the first epoch (2025). The project objectives are being made achievable with the finalisation of a land purchase 2.87Ha of private land, the elevation of which falls inside the 2105 Highest Astronomical Tide (5.9m AOD) projected for sea level rise (UKCP09 Medium 95%ile).

The area of land in Cwm Ivy is strategically important to provide offset compensation habitat for new defence (FRMS) works and current defence maintenance (requiring marine licence) within the Carmarthen Bay and Estuaries SAC, see the SAC area to the right.

NOTE: It is not infeasible that the area could also be used to provide far-field compensation for losses within other nearby coastal SAC IF no other options [for habitat creation] existed in these areas. But it would be subject to multiplier effects.



Project Brief

Carmarthen Bay and Estuaries SAC

Desired deliverables and outcomes

Deliverables:

Item	Project deliverable
Deliverables of the outline business case stage of the project	
1	Form A for PAR stage
2	Memorandum of Understanding (MOU) with National Trust
3	EIA screening assessment (EAU)
4	Scope of services for Professional Services Contract(s) to include: Options appraisal and outline design, flood risk/consequence assessment, coastal Geomorphology assessment, hydrology (ground water and surface water) assessment, landscape Assessment (ESAP & ILP), habitat regulation assessment, and ecosystems services assessment.
Deliverables of the appraisal stage of the project	
5	PAR Report
6	Land agreement secured with National Trust
7	Early Contractor Involvement (ECI)
8	Outline Design Drawings
Anticipated Deliverables of Future Stages of the Project	
9	Detailed Design Drawings
10	Updated Environmental Statement / Report
11	Completed Scheme
12	Health and Safety File (incl. O&M Manual)

Outcomes:

Item	Description of outcome
Outcomes specific to the Appraisal stage of the project	
1	Production of a satisfactory and cost-effective Project Appraisal Report (PAR) which provides the business justification and gains approval for managed realignment in Cwm Ivy Marsh.
2	Land agreement with National Trust
Anticipated outcomes of later stages of the project	
3	KPI 950 – 39 Hectares of saltmarsh habitat creation

Project Brief

Project scope and exclusions

Scope:

The scope of works will be produced in the following doc 'IMWA001475– Cwm Ivy Statement of Scope'.
The key products required are:

Item	Product and requirement
NRW	
1	Outline business case
2	Communications plan
3	Topographical survey – to be carried out by Area ASM team.
4	Environmental screening report – to be carried out by EAU
5	Scope of services for appraisal stage then beyond
6	MOU with National Trust
7	Land agreement with National Trust
National Trust (working in partnership)	
8	Supporting with external comms with the public throughout project lifecycle
Consultant / Contractor	
9	Investigations and surveys to support the development of the PAR
10	PAR document to provide evidence to support the construction of the Preferred Option
11	Outline construction estimates through early contractor involvement (ECI)
12	Detail drawings of the Preferred Option suitable for construction.
13	Completed managed realignment scheme capable of providing producing 39Ha of saltmarsh habitat creation.

Exclusions:

Item	Description of exclusion
1	None identified at outline business case stage.

Constraints and assumptions

Constraints:

Item	Description of constraints
1	Environmental constraints as highlighted in the attached environmental Screening report.
2	Cwm Ivy is very popular site with visitors and walkers and the coastal path runs along its frontage.
3	Cwm Ivy marsh is already a Site of Special Scientific Interest.

Pre-requisites/Assumptions:

Item	Description of assumptions
1	Pre-requisite:- land purchase of 2.87Ha is being finalised.
2	Land agreement in place with the National Trust.

Project Brief

Item	Description of assumptions
3	Correct licenses and permissions can be obtained.
4	A technically feasible solution exists to meet the project objective.

Project tolerances

Tolerances below to be approved and agreed by the project board

Item	Tolerance
1	Cost - overall projected project budget within 50 – 95%ile figures – controlled by Project board - overall projected project budget over 95%ile figure – elevate to programme board/Strategic Planning Investment Group via project board - In-year budget variances – greater than £50k refer to project board for acceptance and elevation to programme board as appropriate
2	Time Programme variances equal to or greater than 2 weeks – refer to project board. Greater than 4 weeks – elevate to programme board via project board for review.
3	Quality Submissions to be in usable format and plain English.

The user(s) and any other known interested parties.

Item	Description	User or interested party?
1	National Habitats Creation (part of Flood Risk Management)	Client / User
2	Environmental Assessment Unit (EAU)	Interested party
3	National Trust	User/Interested party
4	Flood Risk Analysis	Interested party
5	Asset Systems Management	Client / Interested Party
6	Knowledge, Strategy and Planning (KSP)	Client / Interested Party
6	Glamorgan/Gwent Archaeological Trust	Interested party
7	District Team (Formerly CCW) representing Bury Inlet SPA/ Carmarthen Bay and Estuaries SAC Note: full consultation has been undertaken with the Bury Inlet SPA/ Carmarthen Bay SAC Consultation Group (SACRAG) Jones, Jonathan; Thomas, Keri; Rhind, Peter; Cole-King, Adam; Rogers, Kerry; Rimington, Nicola; Wright, Rebecca; Jones, Huw; Rees, Mair; Huw Williams; Pickersgill, Phillip; Winterton, Andrea; Youell, Mary (Operations Manager); Drewett, Hazel; Howe, Liz; Bialynicki-Birula, Nick; Williams, Heilyn; Schlottmann, Victoria; Seaton, Ceri; Parr, Jeremy	User/ Interested party
8	Swansea Council and AONB	Interested party
9	Gower Society	Interested party
10	CADW	Interested party

Project Brief

Interfaces (in addition to the above)

Item	Description of the interface
1	Biodiversity
2	General Public

Outline PAR

Composition

NRW PAR presenting the preferred option for Habitat Creation at Cwm Ivy Marsh. The PAR will be produced by a consultant with the support from NRW and an ECI contractor.

Derivation

- Cwm Ivy Marsh - Project Mandate
- Form A Outline Business Case for Cwm Ivy Marsh Managed Realignment

Customers Quality Expectation

Minimal review changes on the first draft and first time PAB approval

Acceptance Method

Final Document will be emailed to all and uploaded to Asite.

Outline Business Case

Refer to Introduction or Form A – most up to date version can be request from ABasford

Project Product Description

Item	Product	Produced by	Format Required	Delivery Method	Accepted by
1	Project Programme	Consultant / Contractor	PDF and MS Project	Email	Project Manager
2	Progress Report	Consultant / Contractor	Email	Email	Project Manager
3	Technical Drawings	Consultant / Contractor	PDF and CAD	Email and Asite	Project Manager
4	Specifications & Reports	Consultant / Contractor / CDM-C / NRW	PDF and Word	Email and Asite	Project Manager
5	Cost information	Consultant / Contractor	Excel Spreadsheet	Email and Asite	Project Manager
6	PAR	Consultant	Word	Email and Asite	PM/Client

Project approach

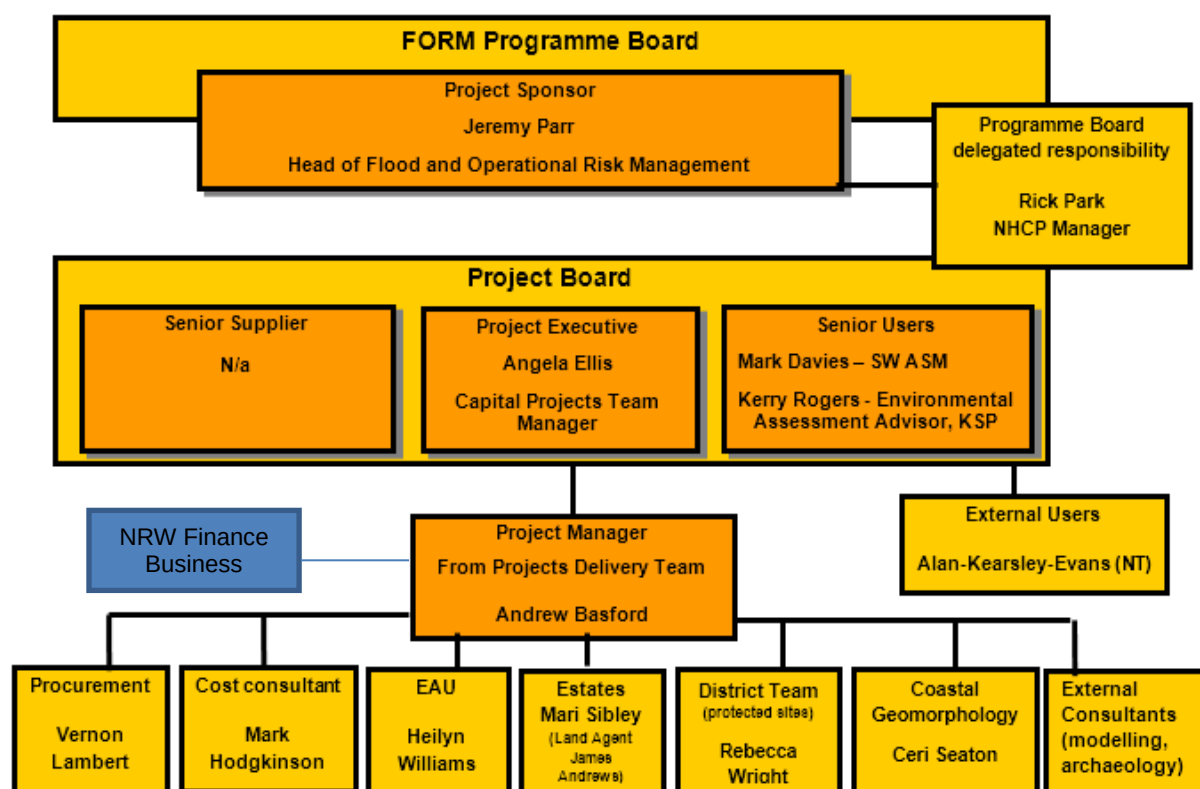
Stage	Description
1	Project Set up – Initial Site Visit with Client and scoping meeting
3	Tender and Appoint PSC consultant
4	Refine Shortlist of Options
5	Compare and select preferred option

Project Brief

Stage	Description
6	Complete PAR, land agreement in place and gain approval.
7	Tender and Appoint Contractor
8	Detailed design drawings
9	Apply for required permissions and assents
10	Construct

Project management team structure

The following project management team structure was approved following agreement with all parties and the production of a project governance document (24/6/2014) which has been appended with this brief.



Role descriptions

Role	Description of role and responsibilities
Project Sponsor	The Project Sponsor will represent the business at the corporate level and as such define the need for the project, produce the mandate and promote it to Programme management for funding. The Project Sponsor will then have limited involvement with the project, but will be represented by the Senior User. The Project Sponsor will hold the Project Executive accountable for delivering the project requirements in line with the business case and the approvals given.

Project Brief

Role	Description of role and responsibilities
Project Executive	Ultimately responsible for the project, supported by the Senior User and the Senior Supplier. Role is to ensure that the project is focused throughout its life on achieving its objectives and delivering a product that will achieve the forecast benefits. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of the business, user and supplier.
Senior User	The Senior User is responsible for specifying the needs of those who will use the project's products, for user liaison with the project management team, and for monitoring that the solution will meet those needs within the constraints of business case in terms of quality, functionality and ease of use.
Senior Supplier	The Senior Supplier represents the interests of those designing, developing, facilitating, procuring and implementing the project's products. This role is accountable for the quality of products delivered by the supplier(s) and is responsible for the technical integrity of the project.
Project Manager	The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by them. The Project Manager's prime responsibility is to ensure production of those products within the tolerances of time, cost, quality, scope, risks and benefits. The Project Manager is also responsible for the project producing a result capable of achieving the benefits defined in the Business Case.

References

1. Cwm Ivy EIA Screening Advice note
2. Cwm Ivy EIA Scope for Appraisal Stage

Please note: Cwm Ivy EIA Screening Advice note and Cwm Ivy EIA Scope for Appraisal Stage were completed in April 2014

3. Cwm Ivy proposed Project Governance (June 2014)

Environmental Screening Advice Note

To be completed for all med and high environmental risk capital or revenue projects

Screening completed by: Heilyn Williams

Reviewed by:

Date: 2nd April 2014

Information from Project Mandate

Project Name	Cwm Ivy Marsh Retreat		
Location	Lanmadoc, Gower	NRG	NGR: SS 44602 94189
Senior User	Rick Park	Senior User Post Title	National Habitat Creation Programme Manager

Background / Scope & Description / Objectives of the Scheme

Cwm Ivy Marsh, Llanmadoc , Gower, has been identified by the NRW National Habitat Creation Programme as the preferred option for creating compensatory habitat within the Carmarthen Bay SAC. The project would create intertidal compensation habitat that would contribute towards the coastal squeeze habitat loss identified within the Swansea and Carmarthen Bay Shoreline Management Plan.

The scheme would create Atlantic saltmarsh habitat through the managed realignment of coastal defences, avoiding increased flood detriment to any essential infrastructure and properties. This would be achieved by introducing multiple breaches to the existing sea defence that separates Cwm Ivy Marsh from the Carmarthen Bay and Estuaries Special Area of Conservation. Elevation of the area in relation to the adjacent intertidal and salt marsh indicates that tidal inundation and drainage of Cwm Ivy Marsh would occur naturally. Introducing a secondary defence structure would also be required to avoid detriment to the properties and access track along the northern and western boundary of the site.



Environmental Screening

	Environmental Desk Based Assessment	Follow up Action Required	Who will carry out the follow up action?
Key Environmental Issues	<u>Biodiversity, Fisheries & Invasive Non Native Species</u> Cwm Ivy Marsh lies directly adjacent to Carmarthen Bay and Estuaries SAC & Bury Inlet SPA. The site itself has been designated Cwm Ivy Marsh and Tor SSSI. Features of special scientific interest include Marshy Grassland, Freshwater Drainage Systems, Fixed Dune Grassland and Limestone Grassland. 3.38ha of Ancient Woodland (Cwm Ivy Wood) adjoins the southern boarder of Cwm Ivy Marsh. Considering nature of the site there high potential for protected species to be present. Invasive Species such as Himalayan Balsam and	<u>Biodiversity, Fisheries & Invasive Non Native Species</u> Baseline review of existing data (to include Phase 2 Habitat Survey undertaken in 2013). Determine protected species surveys that will be needed.. Assess from topographical model on whether Ancient Woodland will be impacted from saline inundation. Further consultation required with internal and external conservation groups. E.g. CCS Conservation Department, RSPB, Wildlife Trust, National Trust.	TBC

	Japanese Knotweed are known to be in the area. Their presence within the site will need to be determined. Seasonal constraints may apply: no work during overwintering birds period; vegetation clearance must not take place during bird nesting season. <u>Water (inc WFD):</u> Increased saline water inundation has potential to impact upon existing freshwater features. Assessment needed to determine whether there will be impact upon streams, ditches, and groundwater. <u>Archaeology:</u> There are no statutory designations within the vicinity of Cwm Ivy Marsh. However, there are numerous known archaeological features are recorded on the Historic Environmental Features Database i.e the coastal embankment itself, field boundaries, dry stone walls, bridges, enclosures, sheep troughs, Tilpins Wells. <u>Landscape:</u> Cwm Ivy Marsh lies within the Gower Registered Historic Landscape and also the Gower Area of Outstanding Beauty (AONB).	<u>Water (inc WFD):</u> WFF Preliminary Assessment required to determine whether scheme has potential to cause deterioration to a water body or prevent it from achieving its set status (i.e. good status/potential). Consultation necessary with NRW Fisheries, Biodiversity, Geomorphologist, and Hydrology team. <u>Archaeology:</u> Consult with Glamorgan and Gwent Archaeological Trust and Cadw regarding scheme proposal and level of assessment required. <u>Landscape:</u> Consult with NRW Historic Landscape Team (Carole Rothwells), GGAT and Gower AONB team (Chris Lindley) within City and County of Swansea.	TBC TBC TBC
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	<u>Recreation:</u> Public Right of Ways circles all boundaries of Cwm Ivy Marsh. Footpath that runs along embankment on the western perimeter forms part of the Coastal Path. As site is owned by the National Trust it's an Open Access area to the public. Area is popular with walkers and bird watchers.	<u>Recreation:</u> Consult with City and County of Swansea Public Rights of Way Officer, and also NRW Coastal Path officer. The scheme is likely to require a PRow temporary diversion order or a closure notice should any of the paths need to be rerouted.	TBC
Likely Consenting Route	Should there be a need for a new flood embankment to be constructed the works are likely to require planning consent. However, should a flood embankment not be required it is possible the works will fall under NRW permitted development rights. If this is the case then the works will need to be advertised as per the EIA (Land Drainage Improvement Works) Regulations 1999.	• Send Town and Country Planning (EIA) Regs Screening Request to local planning authority. • If planning consent is not required works will need to be advertised under EIA (Land Drainage Improvements Works) Regs 1999.	TBC
Other Approvals required	• <i>SSSI Assent</i> • <i>HRA</i> • <i>Marine License</i> • <i>WFD Preliminary Assessment / Full Assessment</i> • <i>PRow Closure/Diversion Order</i> • <i>Possibly EIA (Agriculture - Wales) Regs 2007</i> • <i>Possibly Protected Species License</i>	• Consult with protected sites team regarding scope of works needed to deliver SSSI Assent. • HRA - Complete Test of Likely Significant Effects, should Appropriate Assessment be needed agree scope with Protected Sites Team. • Marine License – Consult with NRW Marine Licensing Team, see Annex 1 for further	TBC

		information. • WFD – Consult with NRW Fisheries, Biodiversity, Geomorphologist, and Hydrology team. • PRow – Consult with CCS PRow Officer, NRW Coastal Path Officer, National Trust. • Obtain Screening opinion from Welsh Government EIA (Agriculture) Regs 2007.	
Key environmental opportunities	Scheme will deliver approx 35ha of intertidal habitat. Possible opportunities to improve public right of way facilities & information e.g. seating, information boards, access improvements.	Approach consultees and the public for suggestions.	<i>TBC</i>

Map highlighting scheme constraints has been included within Annex 2.

A record of comments from EAU screening consultation can be found within Annex 3.

Screening Conclusion

Following a review, the Environmental Assessment Unit (EAU) have determined that this project could lead to significant environmental effects because of the nature of the receiving environment, the scale of the proposal and/or the complexity or profile of the project.

EAU should be included in the project team for the Initial Assessment stage to allow environmental consideration of the options appraisal process and to advise on environmental risk management for the project.

Annex 1:

Marine Licensing

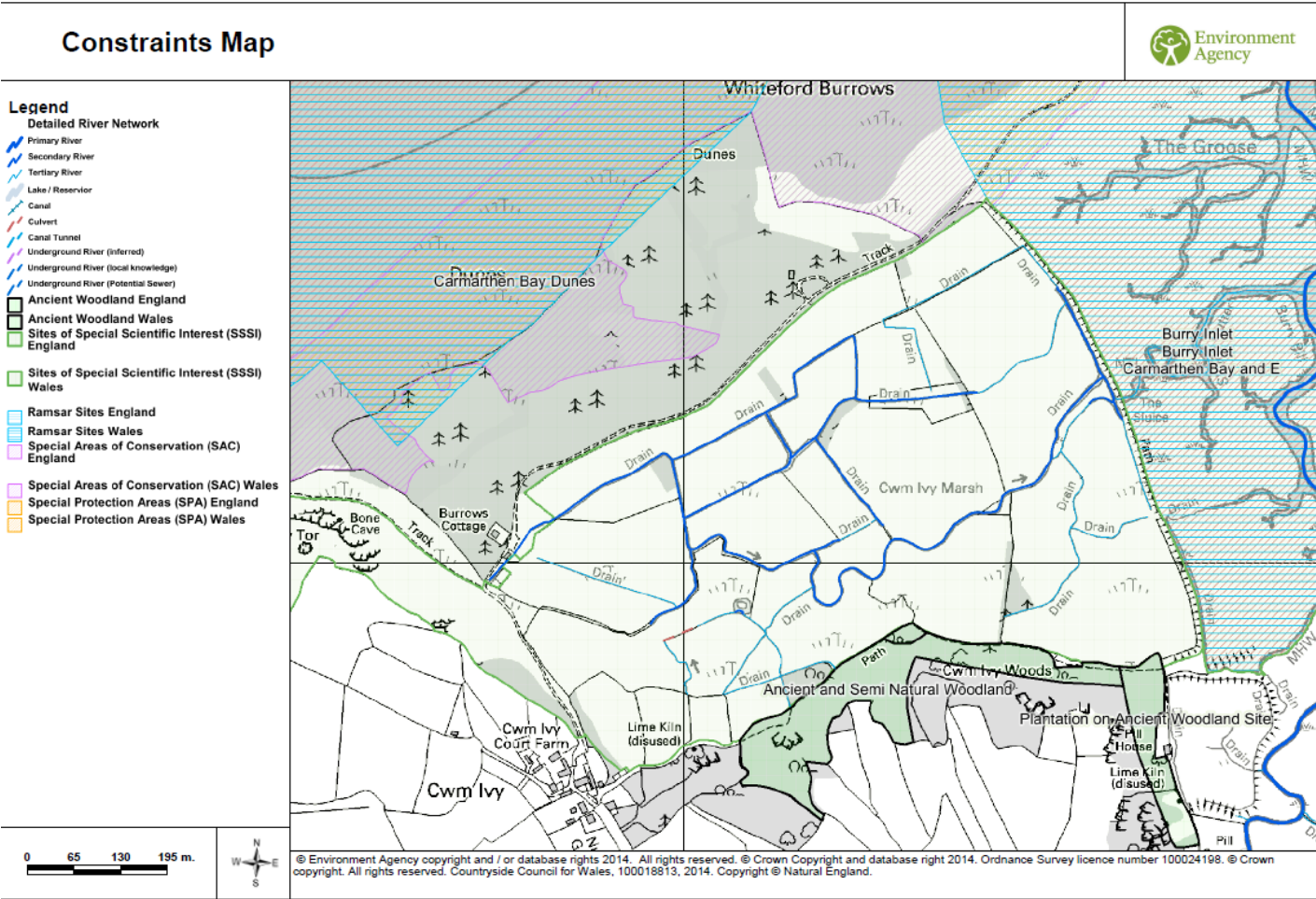
In broad terms a Marine Licence is required for any deposit, removal, construction or dredge operation below Mean High Water Springs out to 12 nautical miles using a vehicle, vessel or marine structure, (Marine and Coastal Act 2009).

Some activities have been exempted from the need to have a marine licence. (The Marine Licensing (Exempted Activities) (Wales) Order 2011). These may include coast protection, drainage and flood defence works. The Marine Licensing Team require notification of these activities, which are then kept on a Register.

To determine whether the works to be undertaken require a marine licence or can be registered as exempt, please contact the Marine Licensing Team at:

Marinelicensing@cyfoethnaturiolcymru.gov.uk.

The issue of a marine licence or registration of an exempt activity does not absolve an operator from gaining any other relevant consents or permits.



Annex 3:

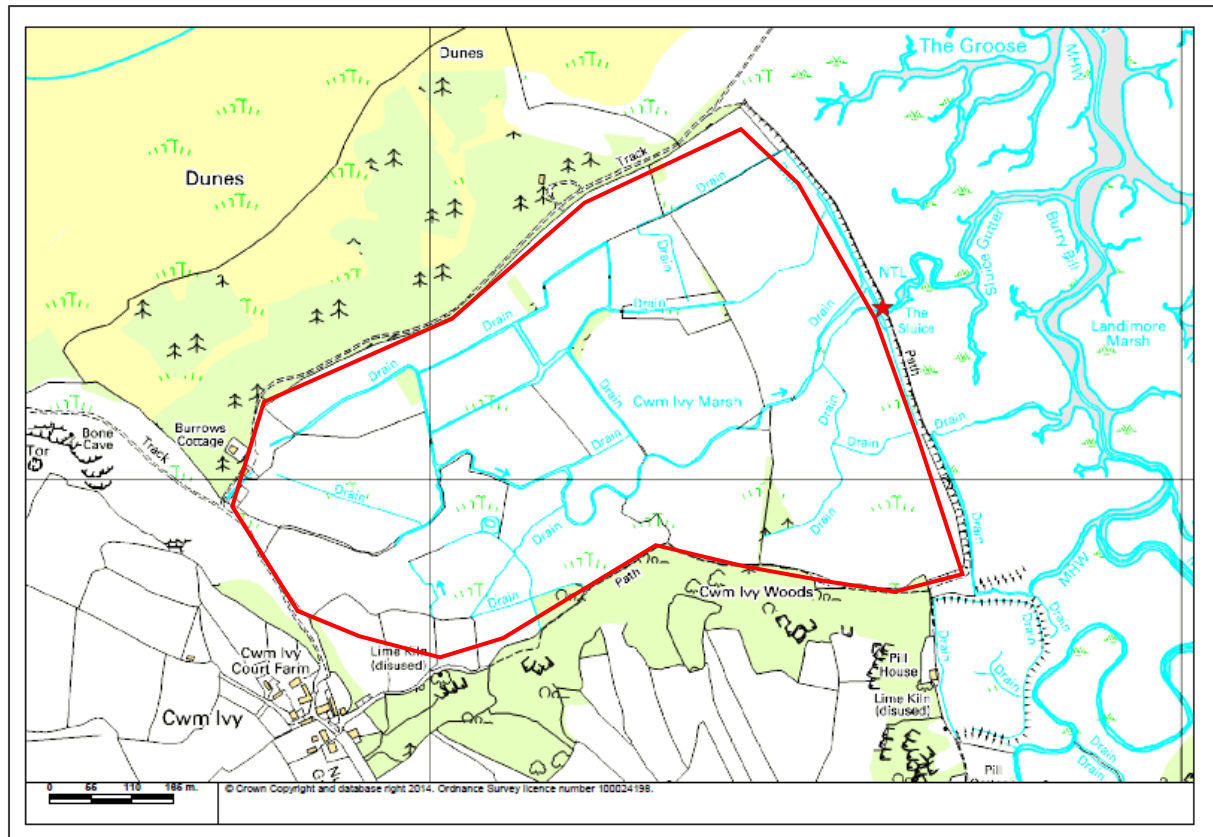
Parties Consulted in the Screening:

Name	Function	Date issued	Response received	Summary of response
Mair Rees	Biodiversity	7.3.2014	No Response Received	
Mark Tavaner	Fisheries	7.3.2014	7.3.2014	Nothing to add.
Chris Palmer	EM	7.3.2014	No Response Received	
Ann Lewis	Geomorphologist	7.3.2014	No Response Received	
Becky Wright	Protected Sites	7.3.2014	31.3.2014	Considerations Effect/appraisal on/of: i) SSSI features - Cwm Ivy Marsh and Tor SSSI - most recent NRW walkover to inspect site vegetation condition/distribution August 2013 (I have a report from our Phase 2 surveyors) ii) Protected species - likely need for checks /surveys needed for a range of EPS - water vole, otter, possibly for Great crested newt / dormice and bats (records for area need to be checked by District team/South East Wales Biological Records centre (SEWBREC)) iii) invertebrates - eg Vertigo angustior (narrow mouthed whorl snail) (we need to check for any Cwm Ivy records/nearest records with Nick Edwards - Nick? and our invertebrate specialist) iv) Breeding birds v) other habitats and species ie S.42 Priority list (NERC act) HRA screening requirements eg: Adjacent to Carmarthen Bay and Dunes SAC (Whiteford Burrows component) and Carmarthen Bay and Estuaries SAC, Burry Inlet SPA, Burry Inlet Ramsar site, Whiteford Burrows, Broughton Bay and Landimore Marsh SSSI and Burry Inlet and Loughor Estuary SSSI (citations and boundary maps all previously sent to Rick) Also Whiteford Burrows National Nature Reserve Hydrological/hydrogeological considerations and specialist advice re potential effects on adjacent Whiteford Burrows SSSI (SAC) - specialists to comment Modelling of hydromorphological systems? - sediment movements -

				specialists to comment Recreation and Access - inparticular Wales Coast path; Educational/Recreational use of NNR - access to NNR including vehicular as currently for site management and any implications on that route - Reserves Team (Nick) Landscape Assessment (Seascape? Landscape and Visual Impact Assessment) methodology to be considered with specialists ref Gower AONB, Gower Registered Historic landscape Archaeology - Glamorgan and Gwent Archaeological Trust and CADW <i>Other considerations:</i> Planning requirements, Ordnance? (to discuss with NT/and NRW Reserves manager (Whiteford)?)
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Cwm Ivy Marsh Location Plan and supporting photos (taken September 2014)

NGR: SS 44218 94051



Standing at the sea defence breach location (above red star on map above) looking into the Marsh



View of the Marsh from the Northern end of the sea defence



View of breach in sea wall/defence





View standing on Cwm Ivy marsh sea wall/defence showing foreshore (left) and marsh (right)



View of sea wall front face



Cwm Ivy Aerial Photos 11th September 2014.

Following images with watermark are the property of Dyfed Powys Police.









Enlarged channel within Salt Marsh
due to Breach 6th October 2014