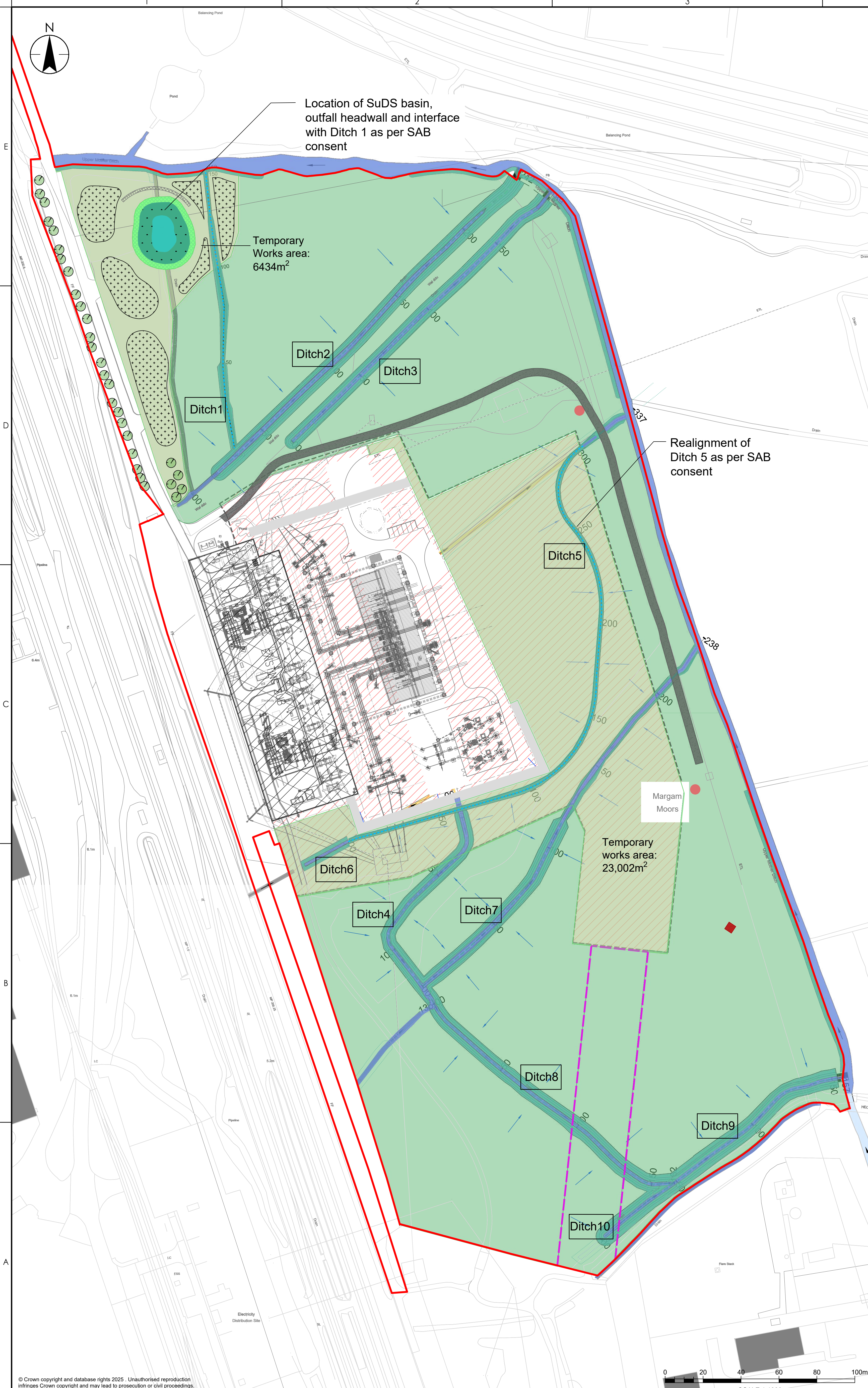


Appendix D Landscape and Habitat Strategy Plan and Landscape Designs.





LEGEND:

- Site Boundary - Permitted Development Works
- Margam Substation Planning Application Boundary
- Tata Steel Planning Application Boundary
- Retained vegetation
- Individual Tree
- Temporary Works Area (Construction Swathe) (Seeded for natural regeneration with *Lolium multiflorum*, *Westerwolds Rye* Grass, 4g/m²)
- HDD cable route (retained vegetation)
- Aquatic mix in permanent water
- Marginal planting
- Grass Grid
- Riparian Woodland Mix
- Reinstatement/ Realigned Ditches
- Enhancement Ditches (1:3 slopes seeded for natural regeneration as per temporary works area)
- Retaining wall for flood defence
- Existing ditch
- Wildlife Tower (location TBC)
- Hibernacula Locations
- Gabion Basket Wall (location TBC)
- Existing Carriageway

NOTES:

1. All planting shown on the plans is subject to the location of services and utilities, and shall adhere to the following planting distances:

- Trees & shrubs 2m from fences.
- Trees at least 3m from telecoms cables.
- Trees at least 2m from underground electricity cables & shrubs at least 1m from underground electricity cables, including lighting cables.
- Where planting is shown below or adjacent to overhead powerlines the contractor is to check with relevant statutory authorities for guidelines on appropriate planting distances. All new planting is to be located in accordance with the relevant authorities' guidelines. • Trees at least 10m from a pylon & shrubs at least 5m from a pylon.
- Trees at least 3m & shrubs 2m from all drains & French drains. Trees & shrubs at least 2m from ditches on min. one side.
- Trees at least 5m from outfalls & shrubs at least 3m from outfalls.
- Trees at least 5m from any footpath & shrubs at least 2m from any footpath.
- Trees to be a minimum of 10m from ecological ponds.
- Trees & shrubs at least 2m from balancing pond inlets and outlets.
- Only shrub species or groundcover species to be planted over underground culverts.

Notwithstanding any notes on these drawings, it is the contractor's responsibility to check for the presence of any underground and overhead utilities and services before undertaking any excavations or planting works. Where utilities and services mean that planting is unachievable, the contractor is to notify the Landscape Architect to agree alternative locations.

2. All soft areas shall be nurse grass seeded as set out in MAREXT-STN-XX-XXX-DR-LA-0001 & MAREXT-STN-XX-XXX-DR-LA-0002. Refer to the Peat Management Plan and the specification on MAREXT-STN-XX-XXX-DR-LA-0003 for subsoil and topsoil requirements and treatment of areas prior to planting.

3. All topsoil should be suitable reused topsoil from onsite. Reused topsoil should be stored appropriately during construction. Refer to the Peat Management Plan and Soils Management Plan

4. Site setting out of landscape areas and planting shall be to the acceptance of the Landscape Clerk of Works or Project Landscape Architect.

5. This drawing should be read in conjunction with drawings MAREXT-STN-XX-XXX-DR-LA-0001-4

6. All planting to be within the site boundary.

7. For full drainage design refer to MARPT-BHK-01-XX-RP-C-090001 Margam Drainage Report. Drainage design shown corresponds to SAB consent (reference S2025/0037) governing surface water including SuDS, Ditch1, and Ditch 5. Drainage design corresponds to OWC consent (reference FD 20250404) governing enhanced and reinstated ditches and is coordinated with the Water Vole Management 2488240-D07(04)

P03 Updated After Drainage Update	JRM	RW/SH	2025.11.07
P02 RLB Update	JRM	RW/SH	2025.08.05
P01 First Draft	JRM/JM	RW/SH	2025.07.14
Issued/Revision	By	Appd	YYYY.MM.DD

Notes:
The position of ditches and other features within this plan are approximate and have been transposed from plans submitted by RSK as part of the Water Vole Licence Application in 2024/2025.

Common plant species considered of value to water voles are provided, following those described in the Margam Substation Water Vole Licence Method Statement. To be discussed and agreed with NPT. The emerging drainage design will influence the final landscape detailed plan, to be conditioned.

Issue Status

S5 - FOR REVIEW AND ACCEPTANCE

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Client/Project Logo:

Project:
Margam

Port Talbot

JRM/JM	RW	RW/SH	2025.11.07
Dwn	Dsgn.	Chkd.	YYYY.MM.DD

Title

FIGURE L9 LANDSCAPE PLAN

Issued/Revision	By	Appd	YYYY.MM.DD
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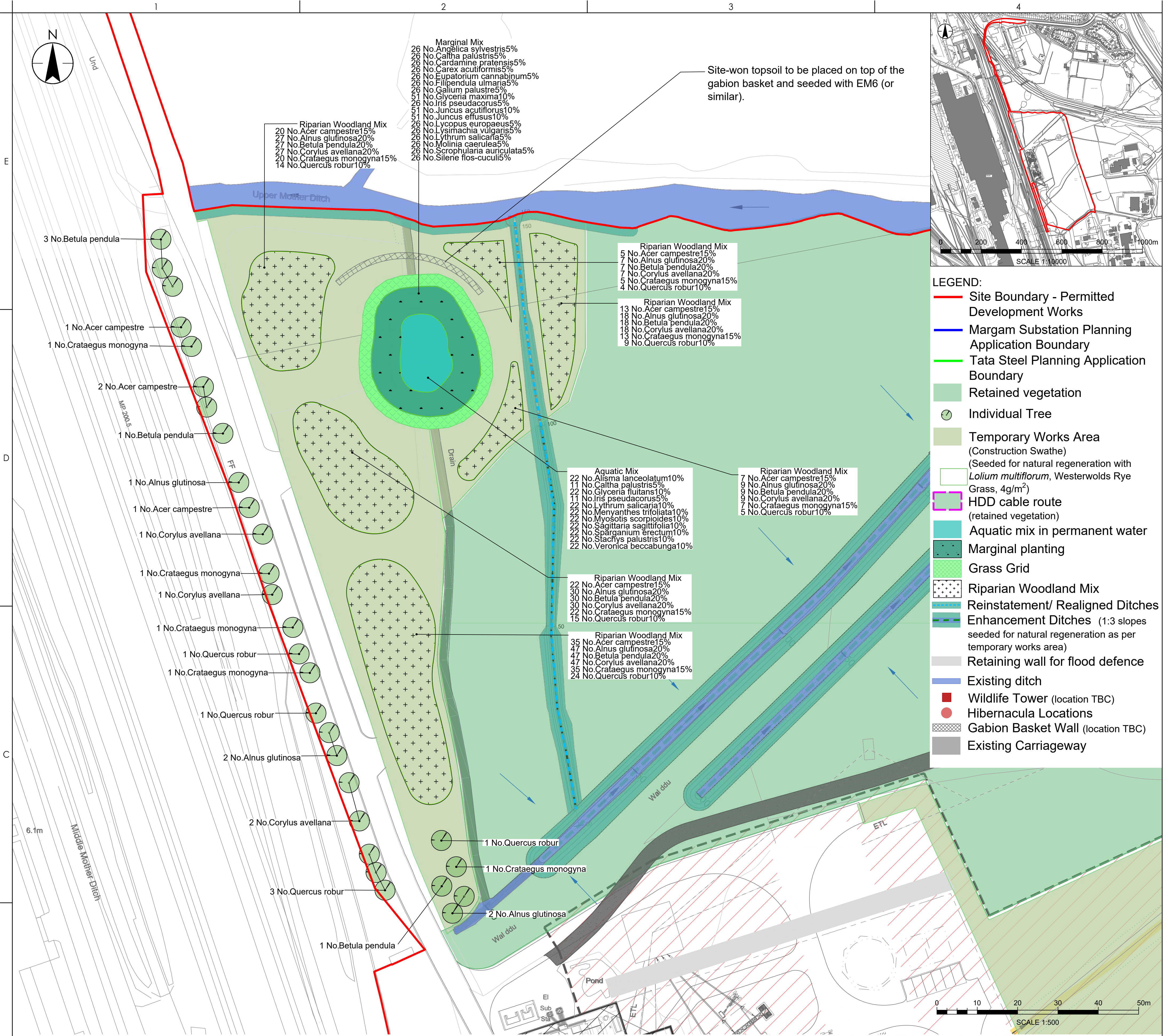
Project No.
331201497

Revision
P03

A1 Scale
1:1000

Drawing No.
MAREXT-STN-XX-XXX-DR-LA-0001

Issued/Revision	By	Appd	YYYY.MM.DD
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Notes:
The position of ditches and other features within this plan are approximate and have been transposed from plans submitted by RSK as part of the Water Vole Licence Application in 2024/2025.
Common plant species considered of value to water voles are provided, following those described in the Margam Substation Water Vole Licence Method Statement. To be discussed and agreed with NPT. The emerging drainage design will influence the final landscape detailed plan, to be conditioned.

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Port Talbot

Project:
Margam
Port Talbot

Title
FIGURE L7
LANDSCAPE MITIGATION AREA
PLANTING PLAN

Project No.
331201497
Revision
P03

A1 Scale
1:500
Drawing No.
MAREXT-STN-XX-XXX-DR-LA-0002

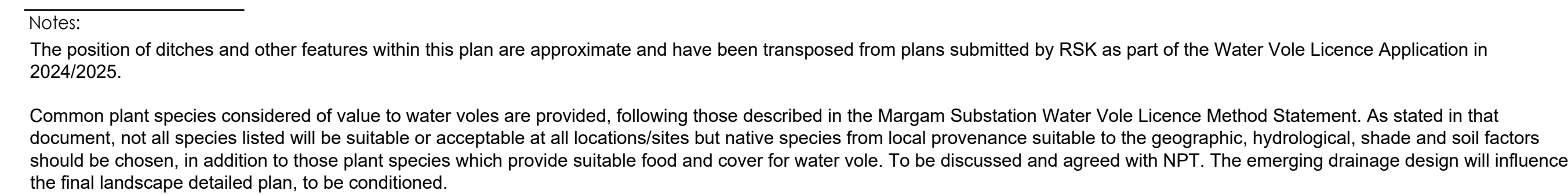
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JRM/RW/RW/SH 2025.11.07
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JRM/IM/RW/SH 2025.07.14
Issued/Revision
By Appd YYYY.MM.DD

JRM/IM/RW/RW/SH 2025.11.07
Dwn Dsgn Chkd YYYY.MM.DD

ORIGINAL SHEET - SOA1
C:\Users\jainford\OneDrive\Stantec\Margam\port talbot - landscape and visual\drawings\landscape strategy plan\331201497\landscape strategy - margam and cable route pd works
Plotted: 07.11.2025 11:07:11:308 AM By: Rainford Mendez, Jenifer



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WM/JRM	RW	SH	2025.07.14
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Drawing No. _____

Appendix E Illustrative Design: Wildlife Tower and Gabion Baskets



Building a new Lesser Horseshoe Bat Night Roost Case Study - *How we did it*

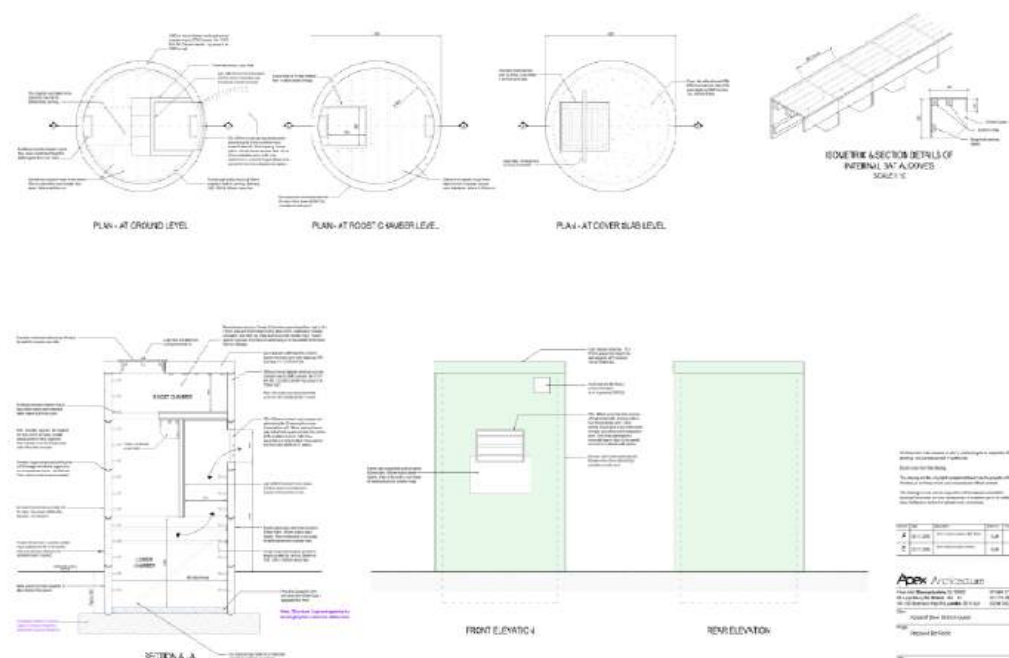
Background A major education led regeneration programme is underway in Cinderford, Gloucestershire. Programme implementation requires the building of two new replacement Lesser Horseshoe Bat Day Roosts and two Night Roosts. The focus of this case study is about the practical experience of designing and building two bat night roosts (A case study in relation to the [day roost](#) is also available). We hope by providing this information freely it will be of assistance for similar projects in the future. For further information contact details are provided at the end of the case study or visit the [regeneration pages](#) on the Council website (www.fdean.gov.uk).



Introduction Planning permission for a new mixed use development required the building of two Lesser Horseshoe Bat (LHB) night roosts. The purpose of the night roosts were to extend feeding ranges and provide additional bat colony resilience by providing additional occasional shelter/feeding perches.

Design and Siting Radio tracking data from an existing main roost site, habitat suitability assessments together with future Forestry Plans were used to select locations which were considered likely to be the most useful to the bats and reduced chance of substantial disturbance. The 'Lesser Horseshoe Conservation Handbook' (2008) Schofield, H. provides excellent background to LHB ecology, roost requirements and roost design features. The handbook illustrates a 'shed' like night roost design however bearing in mind the open access nature of the site, preference for low maintenance and a permanent structure it was decided an alternative design was needed in this case. The handbook provided good guidance of the requirements and features for a night roost.

In addition to the ecological requirements we were keen that the structures should be as simple as possible, easily replicable and minimise on site construction time by prefabrication.



Our final design was based on pre-cast concrete sewer rings, with an internal baffle and upper chamber. An idea being that these could be prefabricated off site and transported and easily assembled on site.

Details drawings may be requested from contacts below

Construction The compacted hardcore base construction of the two sites was undertaken over two days in February 2017 with the construction of the two night roosts taking about a week later that month. Planting around the roost was completed by the end of March 2017. The total cost of construction and landscaping of the two roosts was in the region of £13,500.

Monitoring Static bat recorders (loggers) were placed inside the night roosts for 17 consecutive nights in July 2018. Of the 6700 sound files recorded in the period half were identified as bat passes. Whilst the recorders will have undoubtedly recorded bat passes nearby, but outside of the roost, the level of recording clearly indicates the structures were being regularly used.

Key things we might look at differently next time.....

Water tightness

We soon found that the manhole cover on the top (for future access) was not water tight and needed sealing. In hindsight some form of fabricated hatch cover may well be better.

Prefabrication

The contractor chose not to do any internal fabrication off site which led to a longer on site construction time as they wanted to avoid damage in transit. It remains an option for future projects.

Appearance

Landscaping with native climbing and thorned plants has been undertaken and does require some annual maintenance and securing to the structure. Vertical timber cladding was considered as a measure to 'soften' the impact of the structure, but not considered necessary for these locations.

Internal features for other species

The focus for the roosts was for Lesser Horseshoe Bats, however a greater range of features could have been added for crevice favouring bat species.

Costs

There was a certain amount of developmental and risk cost within the overall budget; as a result of trying something new. Overall it is considered costs could potentially be reduced dependant on access and practical experience.



Main Contractors

Apex Architecture
www.apexarchitecture.com

ERNEST HEAL Est. 1929
CONSTRUCTION & Sons Ltd

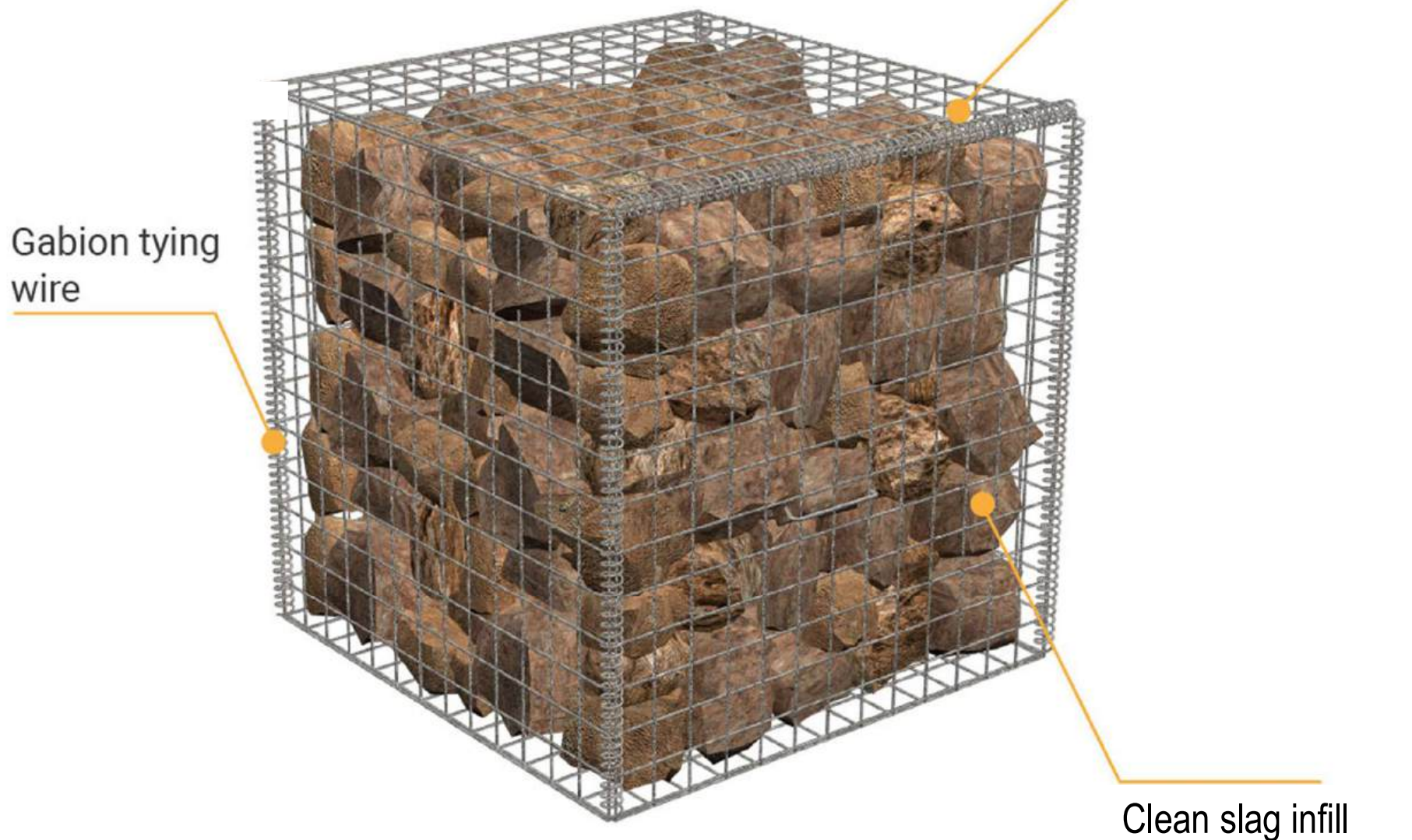
AEWC Ltd
Animal Ecology & Wildlife Consultants

Further Contacts: Alastair Chapman , Sustainability Team Leader, Forest of Dean District Council
alastair.chapman@fdean.gov.uk +44 (0)1594 812329
Wendy Jackson, Regeneration Manager, Forest of Dean District Council,
Wendy.jackson@fdean.gov.uk +44 (0)1594 812645

Illustrative Sketch: Gabion Basket for Wildlife.

Dimensions: 1m³

Gabion Basket to be topped with topsoil (ideally reused from the Site) and seeded with floristic seed mix (e.g. Enorsgate EM6)



Appendix F Management and Monitoring Prescriptions

The following tables set out the Management and Monitoring Prescriptions by Habitat or Species Type, along with the Objectives of that Management; specific prescription measures relating to that habitat; and frequency of management and monitoring activities, following completion of the Site Establishment Works.

Furthermore, where there are considerations that are relevant to the interface of habitat types or species considerations relevant to management, these are described under “other considerations”.

These management and monitoring prescriptions should be read with the main text of the LHMP, to provide context to these prescriptions. A Management and Monitoring Activity Schedule for the 30 years following completion of the Site Establishment Works is also provided at **Appendix G**. Note that all management activity frequencies, extents and approaches are subject to adjustment, depending on the outcomes of monitoring. The proposed scope and timings and also been reviewed and updated in the light of the agreed scope of habitat management and monitoring works described in the NRW-approved Water Vole Management Plan for the Site (RSK Biocensus, 2025a).

Full formal review, and as necessary, update of the LHMP, will take place a minimum of every 5 years, or as required, to allow the plan to evolve in response to monitoring findings. Any proposed changes to the LHMP will be discussed and agreed with Neath Port Talbot Council and NRW.

F.1 Reedbed Complex

Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
Monitoring of Reedbed Complex - Establishment	Monitoring to confirm re-establishment through natural regeneration of the reedbed complex within the temporary works area following completion of works.	Monitoring to be undertaken during the growing season (May-August). Assess reedbed extent, density, height, and presence of associated habitats. Check for signs of scrub encroachment, drying out, impeded drainage and undesirable species (e.g. invasive species or dominance by undesirable species).	Years 1, 2 and 4 following completion of works	Monitoring to be undertaken by suitably qualified ecologist. Should monitoring indicate poor re-establishment of the reedbed complex through the proposed natural regeneration (e.g. <50% reedbed, or associated habitats, or dominance by undesirable species), adaptive measures such as selective planting, seeding or hydrological adjustment may be required. Monitoring outcomes to be reviewed with water level monitoring outcomes (see Ditches below).
Management of reedbed habitat	To maintain and enhance reedbed diversity and	Implement rotational cutting or mowing of reedbed in strips or blocks (maximum 1/3 of area in any one year).	From year 5 every 3-5 years.	Management work to take place between September and February inclusive (as a guide) to avoid any



Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
	prevent overly uniform habitat.	Management work to take place between September and February inclusive. Cuttings to be removed to reduce nutrient loading. Management undertaken to minimise further soil disturbance or compaction if machinery used for this operation use a low-pressure machine such as Loglogic Softrak 120.		disturbance to breeding birds and to avoid water vole breeding season, as well as the breeding season for other species associated with this habitat type (e.g. reptiles and harvest mouse)
Monitoring of Reedbed habitat following Establishment	Review structure and extent of reedbed	Monitoring of reedbed vegetation in June of each monitoring year should record reed density, species composition, and the presence of transitional or mosaic habitats (e.g. areas of open water and ditches, and small areas of wet grassland and scrub/willow carr). The survey will comprise a Botanical Survey undertaken in June of each monitoring year following Phase 1 Habitat Survey methodology to map broad habitat types and extents. NVC survey methodology will be used for the parcels of habitats which were the focus of the NVC surveys prior to the Proposed Development. Photographic fixed-point photography will also be used. Combined, these survey approaches will provide an assessment of overall habitat extents and diversity, compared to the baseline surveys undertaken in 2024-2025. Key targets sought in these surveys will include identification of increased diversity within the Reedbed habitats, absence of undesirable or non-native invasive species, reduction in areas of reedbed monoculture in favour of the more diverse marshy grassland or drier grassland areas and confirmation that scrub cover does not exceed 20% of the Site area	From year 5 every 5 years	This LHMP will be updated to incorporate specific management and monitoring prescriptions for grassland, as/when such habitats become a significant feature of the Site, aligned with the outcomes of this monitoring prescription.



F.2 Ditches

F.2.1 This section has been updated to align with the approved Water Vole Management Plan (RSK Biocensus, 2025a). In the event that the Water Vole Management Plan is updated further, in response to licensing requirements, this LHMP will also be updated and changes will be agreed with NPTC. Note, each of the ditch management prescriptions below are to be coordinated such that no more than 33% of the ditch network and associated banks are managed in any management year, to avoid significant disturbance to water vole and other species associated with these habitats.

Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
Management of ditch vegetation – bankside trees up to 5m from ditch	Management of trees and scrub to prevent overshadowing and encroachment of ditches. 90% of ditch length to remain unshaded.	Rotational pollarding of trees. Rotational management - no more than one third of the bankside trees to be managed in any one year. Frequency of management (number of years between management events) to be dictated by extent of encroachment of bankside vegetation.	Every 5 years. Following the requirements of the Water Vole Management Plan (RSK Biocensus, 2025a).	All vegetation management will take place in the period September- February inclusive (as a guide) in each management year. This timing is to avoid any disturbance to breeding birds and to avoid water vole breeding season, as well as the breeding season for other species associated with bank-side vegetation (e.g. reptiles and harvest mouse).
Management of ditch vegetation – bankside scrub and young trees up to 5m from ditch	Removal of new scrub and young tree growth since initial re-establishment or management of ditches. 90% of ditch length to remain unshaded.	Removal of new growth of scrub and young trees up to 5m from the ditch. Rotational management - no more than one third of the bankside scrub and young trees to be managed in any one year. Frequency of management (number of years between management events) to be dictated by extent of encroachment of bankside scrub.	Every year, as dictated by the Water Vole Management Plan (RSK Biocensus, 2025a) and as required based on extent of encroachment.	All vegetation management will take place in the period September- February inclusive (as a guide) in each management year. This timing is to avoid any disturbance to breeding birds and to avoid water vole breeding season, as well as the breeding season for other species associated with bank-side vegetation (e.g. reptiles and harvest mouse).
Management of ditch vegetation – reeds and marginal	Above-ground removal of reeds and marginal vegetation for managed sections of ditch.	Rational cutting of reed and marginal vegetation within the ditch channel to a height of 100–150 mm. One bank per ditch maximum and up to 33% of ditches to be managed in any management year to retain habitat continuity	Every year, as dictated by the Water Vole Management Plan (RSK Biocensus,	All vegetation management will take place in the period September- February inclusive (as a guide) in each



Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
vegetation	Proportion of undisturbed marginal and bankside vegetation to be retained in any management year for water vole (and other species).		2025a).	management year. This timing is to avoid any disturbance to breeding birds and to avoid water vole breeding season, as well as the breeding season for other species associated with bank-side vegetation.
De-silting of Ditches including removal of any reed rhizomes present	Maintaining open water channels with a minimum summer water depth of 0.5m, whilst retaining proportion of undisturbed marginal and bankside vegetation for water vole (and other species). Preventing the natural succession and drying out of ditches	De-silting of the ditches (also including removal of any reed rhizomes) will take place on a rotational basis such that sections of the ditches will remain undisturbed in any one management year; up to one third of ditches will be de-silted/rhizomes removed in any one management year.	Each section of ditch to be managed every 5 years (i.e. each third of ditches to be managed every 5 years), commencing in year 3, or as dictated by Water Level Monitoring outcomes. Following the requirements of the Water Vole Management Plan (RSK Biocensus, 2025a)	Note anticipated water depths subject to confirmation of the outcomes of the hydrological studies ideally to be in the range 0.5m-1.2m depth. Following the requirements of the Water Vole Management Plan (RSK Biocensus, 2025a) De-silting/rhizome removal will take place in the period September- February inclusive (as a guide) in each management year. This timing is to avoid any disturbance to breeding birds and to avoid water vole breeding season, as well as the breeding season for other species associated with bank-side vegetation
Water-Level Monitoring and monitoring of ditch health including habitats.	100% of ditches to support permanent water. Check for indicators of good or poor ditch health.	Water level monitoring should take place in the same years as water vole habitat and population monitoring. With water levels being taken once in each season for each monitoring year. Anticipated water levels to be confirmed by hydrological modelling and confirmed engineering design for the ditches within the Site. Seeking to confirm water levels remain a minimum 0.5m in the summer months. Dredging to take place, where required in the years aligned with the Water Vole Management Plan requirements. In addition to water depth, visual indicators of ditch health will	Water levels to be monitored in Years 1, 2, 3, 5, 7, 10 and every 5 years after that, following the requirements of the Water Vole Management Plan (RSK Biocensus, 2025a)	Note anticipated water depths subject to confirmation of the outcomes of the hydrological studies and drainage design based on Site topography; ideally to be in the range 0.5m-1.2m depth. Any observations of adverse issues to trigger a review of management approaches and water level control measures



Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
		be recorded including flow conditions, algal blooms, vegetation dieback or vegetation extent, absence of non-native invasive species.		and remedial measures to be implemented where necessary.

F.3 Scrub and Trees

Note: This management prescription relates to young scrub and trees outside of the ditch corridor (as described above) and relates to all other scrub/trees within the Site. All tree works should be undertaken by a qualified arboriculturist or tree surgeon. Works are to comply with BS3998 and HSE Forestry and Arboricultural safety leaflets. Trees are to be left with a well-balanced shape and natural appearance. Chainsaw operatives must hold a certificate of competence. Chain or hand saw wounds will be as small as possible, cutting back to sound wood leaving a smooth surface, angled to shed the water and avoiding bark tears.

Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
Tree and scrub establishment, where appropriate for the Site	Enable the delivery of the proposed tree and scrub planting shown in the Landscape and Habitat Strategy Plan and Landscape Design. Note point in the main body of the Management Plan that the majority of the SINC is unsuitable for tree/scrub planting.	Manage to promote vigorous growth. Replace dead, missing, dying or defective plants (all planting to be checked in the summer to confirm health; with replacements to be provided the following planting season). Source replacement trees/scrub, if required, from local nursery stock and, where possible, use native trees of local provenance.	Following planting, the trees/scrub will be pruned in years 1 and 3 where required to promote vigorous bushy growth. All trees will be inspected annually in the summer for the first three years following planting and dead or dying stock will be replaced during the first available planting window.	Where possible, the cause of failure should be established. This should inform consideration of whether a like for like replacement is appropriate, whether an alternative solution is required, or if it is necessary to amend the management prescription accordingly.
Tree Guards and Stakes	Enable trees to anchor and support vertical growth form.	Adjust/replace/remove all tree stakes, ties and guards as required until anchorage has been achieved and tree has a vertical growth form. Remove guards once established.	From Year 1 of the Plan onwards until established.	
Scrub and young trees – management and monitoring	Maintain balance between habitat types associated with Site.	Monitoring of extent of scrub/young tree encroachment through fixed-point photography and/or GPS in the summer every 3 years. This will determine whether the scrub and young tree extent had increased such that above-ground removal (and stump treatment if	Every 3 years, or as determined by monitoring	All vegetation management will take place in the period September- February inclusive (as a guide) in each management year. This timing is to avoid any



		required) should be undertaken in the following September-February inclusive (avoiding breeding bird season etc). The decision regarding scrub clearance should consider the extent of scrub and the results of species monitoring together.		disturbance to breeding birds, as well as the breeding season for other species associated this Site.
Pollarding of retained trees, where required.	Tree management where over-shading areas of other interest (or required for National Grid operational reasons)	Monitoring of extent to taken place in the summer every 3 years. This will determine management requirements for following September-February inclusive (avoiding bird breeding season etc). Decisions regarding pollarding should consider extend of trees and the results of species /habitat monitoring together.	Every 3 years, or as determined by monitoring	All vegetation management will take place in the period September- February inclusive (as a guide) in each management year. This timing is to avoid any disturbance to breeding birds, as well as the breeding season for other species associated this Site.

Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
Monitoring for water vole	To determine water vole presence/likely absence within the Site and to determine population size estimate, where present.	Monitoring for water vole will occur across all ditches on the Site to determine presence or likely absence of the species. Monitoring will occur between April and September (inclusive) during the water vole breeding period when field evidence is most abundant. During each year of monitoring, surveys will comprise of two survey visits: one survey occurring between 15 April and 30 June. And a second survey visit between 01 July and 31 September (at least 8 weeks apart) in line with current survey protocols (Dean <i>et al</i> 2016). Where evidence of water vole is found, an indication of relative population density will be estimated based on the recorded evidence of number of latrines per 100m of bank-side habitat, as described in Dean I 2016.	The monitoring will take place in years 1-3, 5, 7, 10 and then every 5 years thereafter for the 30-year Management Plan period, following the requirements of the Water Vole Management Plan (RSK Biocensus, 2025a)	Any incidental observations notes during water vole survey relevant to the implementation of the wider Management Plan to noted.
Monitoring for Bats	Determine presence/absence /use of Wildlife Tower provided through Proposed Development.	Monitoring of the Wildlife Tower in June of each monitoring year. The species of any bats present, and their number, will be recorded. Any bat droppings present will be collected and sent for eDNA analysis. Activity monitoring for bats will take place through use	In year 3 and every 5 years subsequently for the Management Plan period.	Monitoring to be undertaken by suitably experienced ecologists and, for the check of the wildlife tower, suitably licensed bat workers.



Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
	Monitor species diversity and indication of abundance through static monitoring surveys.	of static detectors three times through the season in each monitoring year (covering the spring, summer and autumn periods). The static detectors will be deployed in locations to match, as far as possible, the pre-construction baseline surveys to enable a review of any changes in bat activity as a result of the Proposed Development and the management described in this Management Plan.		Any required reparation works to Wildlife Tower to be recorded and built into Management Plan requirements.
Check of reptile hibernacula features	Suitability of hibernacula features for reptile use	Visual checks of form of reptile hibernacula – check still provides variety of opportunities for shelter and access by reptiles (e.g. check that dead wood, for instance hasn't rotted down). Reparation works to be undertaken as prompted by visual inspection – preferably through re-use of materials from management elsewhere within the Site	Check undertaken June (concurrent with Wildlife Tower check for bats) with remedial/reparation works undertaken as soon as practically possible and prior to hibernation period.	Remedial measures undertaken as required. Disturbance to hibernacula features (including for reparation works) to be avoided during the winter whilst hibernating animals may be present.
Breeding bird survey	Monitor species diversity and indication of abundance in response to Proposed Development and Management Plan	Breeding bird survey, undertaken in March-June in each monitoring year, with 6 survey visits spread across the survey period. During each survey visit breeding bird calls and activity will be noted with a view to establishing the breeding bird assemblage present and to give an indication of breeding pairs for each species.	March-June in years 5 and 10 of the Management Plan period	
Invertebrate Survey	Monitor species diversity in response to Proposed Development and Management Plan	An invertebrate survey will be conducted with, in each monitoring year, invertebrate survey visits including the spring, summer and autumn periods. The survey protocol will follow that undertaken for the baseline survey work undertaken prior to commencement of the Proposed Development and will seek to determine the species present and their conservation value.	Surveys to be undertaken March-September every 5 years through the Management Plan period.	



F.5 Species Monitoring (Invasive and Non-Native Species)

Management or Monitoring Prescription	Management Objectives or Monitoring Aim	Specific Prescription	Timing	Other Considerations
Monitoring for Mink and control, where present.	To check for presence/absence of mink and implement control measures.	At least five mink rafts will be installed at suitable locations across the Site (as described in the Water Vole Management Plan; RSK Biocensus, 2025a) and used to record American mink activity. Rafts will be checked once a month.	Mink rafts checked monthly every year (RSK Biocensus, 2025a)	Where evidence of American mink is discovered, a capture and control program of this non-native species will be undertaken by a specialist contractor. Records of American mink will be submitted to the National American Mink recording program through Mink Mapp (https://minkmapp.uk/)
Invasive species monitoring and management	Control of invasive non-native species to avoid establishment and spread within Site	Check for invasive -native species to take place as part of water vole monitoring – particular care taken to check in typical locations for this species (e.g. ditch banks). Target is absence of non-native invasive plant species.	The monitoring will take place in years 1-3, 5, 7, 10 and then every 5 years thereafter for the 30-year Management Plan period (concurrent with water vole monitoring)	Treatment of non-native invasive plant species, if found present, to be determined with input from suitably qualified ecologist.



Appendix G Management and Monitoring Activity Schedule



Margam Substation: Landscape and Habitat Management Plan - Management and Monitoring Activity Schedule following Completion of Establishment Works																																	
Numbers in brackets refer to the relevant section of the Landscape and Habitat Management Plan which should be read in conjunction with this Schedule.																																	
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
Activity																																	
1. Landscape and Habitat Management Plan Reporting and Review - Every 5 years (4.2)				X					X					X					X					X						X			
2. Reedbed Complex (Priority Habitat - Reedbed plus associated wetland habitat types) (6.3)																																	
2A. Monitoring of natural regeneration of Reedbed habitat complex following completion of PD works and soil restoration.	X	X		X																													
2B. Following re-establishment of Reedbed, rotational management of reedbed habitat (every 3-5 years following establishment, dependent on results of reedbed monitoring - 5 year frequency shown here)				X					X					X					X					X						X			
2C. Botanical Survey of Reedbed complex (whole site)				X					X					X					X					X						X			
3. Ditches (6.3)																																	
3A. Rotational Management of bankside vegetation (trees) up to 5m from the ditch (every 5 years, as determined by monitoring)				X					X					X					X					X						X			
3B. Rotational Management of bankside vegetation (scrub) up to 5m from the ditch (every year, as determined by monitoring)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
3C. Rotational Management of bankside vegetation (reeds and marginal vegetation) (Every year)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
3D. Rotational de-silting of ditches - including removal of reed rhizomes and other vegetation, following the requirements of the Water Vole Management Plan, or as dictated by water level monitoring outcomes.			X	X	X		X	X	X			X	X	X			X	X	X			X	X	X			X	X	X				
3E. Water Level Monitoring and monitoring of ditch health including habitats, following the requirements of the Water Vole Management Plan.	X	X	X		X	X			X					X					X					X						X			
4. Scrub and trees (6.3) (outside of ditches)																																	
4A. Scrub extent monitoring and removal where required.			X		X			X			X			X				X			X		X			X				X			
4B Trees monitoring and pollarding/management where required.			X		X			X			X			X				X			X		X			X				X			
5. Species Monitoring (6.4)																																	
Water Vole	X	X	X		X	X			X					X					X						X					X			
Bats			X				X					X						X				X					X						
Breeding Birds				X					X					X					X					X						X			
Invertebrates				X					X					X					X					X						X			
6. Invasive and Non-Native Species (6.4)																																	
Mink - monthly monitoring and capture during trapping season.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Mink - monitoring and capture results review with NRW				X																													
Japanese knotweed and Himalayan balsam	X	X	X		X	X			X					X					X					X						X			