Green Infrastructure Statement

Wern Reserve
Montgomery Canal

Canal & River Trust
Making life better by water

July 2024

1.0 Introduction

Introduction and Purpose

This Green Infrastructure (GI) Statement has been prepared by FPCR Environment and Design Ltd on behalf of the Canal & River Trust (CRT) to accompany a planning application for the creation of a new nature reserve on land to the south of the Montgomery Canal at Wern, Powys.

The planning application seeks permission for the creation of a new nature reserve comprising a large pond, which would incorporate extensive new open water, woodland and grassland habitats, along with associated infrastructure. A proportion of the material extracted to create the pond would be re-used on site to provide connected bunded habitat.

In accordance with Planning Policy for Wales (Edition 12), the purpose of this GI Statement is to demonstrate how GI has been incorporated into the proposal. The GI statement demonstrates the positive multi-functional outcomes of the proposed nature reserve. The proposals are informed by and evaluated in the context of the Building with Nature standards.

The Montgomery Canal Restoration Project

Following a successful bid to the Levelling Up Fund by CRT and Powys County Council (PCC), the Montgomery Canal Restoration Project will make a substantial contribution towards the wider, phased restoration of the Montgomery Canal.

The Wern Reserve represents one of three water-based nature reserves that are being created along the Welsh stretch of the canal to protect the canal's natural standing as a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) and to meet the ecological requirements for restoration. The wider project will involve dredging / bank works to the unnavigable section between Llanmynech and Arddleen, rebuilding of Williams Bridge and building a new Carreghofa Lane Bridge, as well as other critical repairs and improvements.

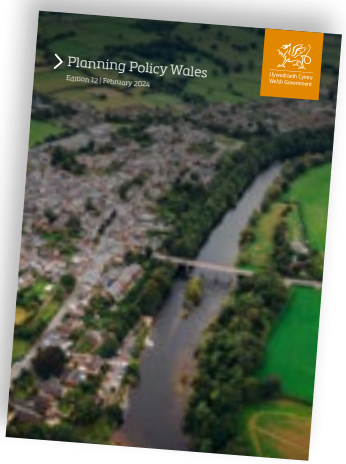
Figure 1: Site Location

2.0 Planning Context

Planning Policy Context

Key national and local planning policies which have informed the development of the GI proposals for the Wern Nature Reserve are set out below. The GI proposals provide opportunities to address relevant landscape policies:

- Planning Policy Wales (PPW) Edition 12 - (February 2024)
- Planning Policy Wales (PPW) Technical Advice Notes (TAN) (March 2016)
- Environment (Wales) Act 2016
- Powys Local Development Plan 2011-2016 (April 2018)
- Landscape Supplementary Planning Guidance (SPG) - April 2019



Green Infrastructure

Green infrastructure is defined within PPW Edition 12 as '*...the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. ... At the landscape scale, green infrastructure can comprise entire ecosystems such as wetlands, waterways, peatlands and mountain ranges or be connected networks of mosaic habitats, including grasslands. ...*'

The new PPW places strong emphasis on taking a proactive approach to GI covering cross boundary considerations, identifying key outputs of GI assessments, the submission of proportionate GI statements with planning applications and signposting Building with Nature standards.

The PPW also places further clarity on securing net benefit for biodiversity through the application of the step-wise approach, including the acknowledgement of off-site compensation measures as a last resort and the need to consider enhancement and longterm management at each step. The importance of strategic collaboration to identify and capture larger scale opportunities for securing a net benefit for biodiversity is recognised.

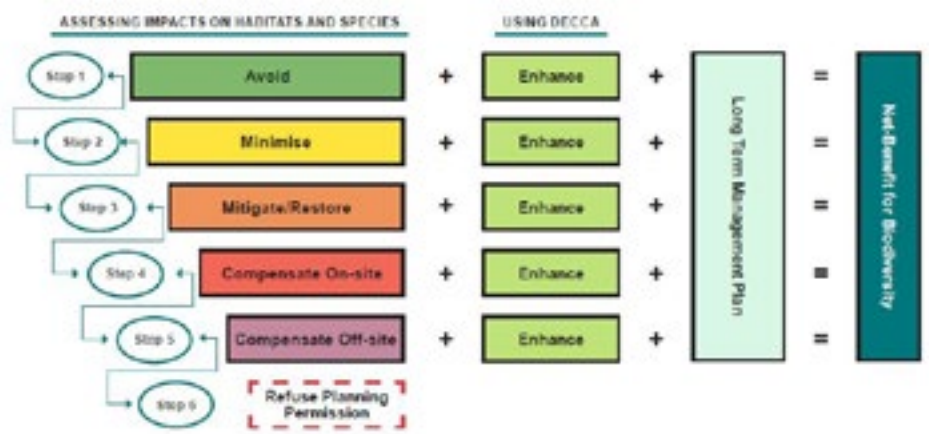


Figure 2: Step-wise approach

3.0 Site Context

Site and Surroundings

This section describes the application site and its surroundings and sets out the surveys undertaken, which have informed the design proposals.

The site is located to the south of the Montgomery Canal at Wern within the adminstrative boundary of Powys County Council. The site is comprised of three irregular parcels of agricultural land, which are used for grazing and adjoin the Montgomery Canal to the north. Coppice Lane and two residential properties (Tan House and Yr Ysgubor) are located to the south of the site. Bank Farm and the A483 are located to the east.

The fields of the site are almost entirely bound by mature hedgerow and trees along the southern, western and eastern boundaries. Vegetation along the northern boundary with the Montgomery Canal and its Towpath includes belts of scrub and rough grassland. Mature trees and sections of hedgerow along the edge of the canal provide a degree of enclosure. A mature outgrown hedgerow and a number of mature trees extend through the centre of the site.

The site slopes down from a high point of c.82m AOD at Coppice Lane in the south to a low point of c.66m AOD along the northern boundary with the canal. A single Public Right of Way extends through the centre of the site.

Figure 3: Environmental and Heritage Designations

Landscape and Visual Appraisal

A Landscape and Visual Appraisal (LVA) for the proposed development has been prepared by FPCR Environment and Design Ltd.

LANDMAP Wales divides the landscape into distinct geographical districts and provides five spatial datasets - Geological, Landscape Habitats, Visual and Sensory, Historic and Cultural.

At a national level, the site is located within NCLA 17 'Montgomeryshire Hills and Vales'. At a local level, the site is covered by two Landscape Character Areas (LCA): LCA 8 'Severn Farmlands' and LCA 10 'Guilsfield'.

The 'Severn Farmlands' is an extensive open valley landscape along the Severn and Vrynwy rivers. The LCA is low-lying with a wide floodplain, which lies at around 60m at its lowest point. 'Guilsfield' is a rolling landscape of hills and valleys, located to the north-west of Welshpool, between the lower-lying Severn Farmland to the north, east and south, Banwy Valley to the west and Tregynon to the south-west.

Development Management Guidelines for these LCAs include:

- *Protecting the setting of the Montgomery Canal, seek ing opportunities to further enhance access to and enjoyment of the canal and open up / enhance views of the canal.*
- *Environmental improvements and enhanced management of hedgerows, hedgerow trees and woodland (e.g. through agri-environment schemes) could result in positive landscape change*

Views of the site are limited as a result of the surrounding topography and vegetation. The LVA notes that the most noticeable visual effects would be experienced by users of the canal towpath and adjoining residential properties.

The LVA concludes that the proposed reserve could be successfully accommodated within the local landscape and result in some localised beneficial effects as a result of the GI proposals.

Ecology and Trees

A Preliminary Ecological Appraisal (PEA) for the proposed development has been undertaken by APEM. A seperate Net Benefit Report has been prepared by FPCR Environment and Design Ltd. An Arboricultural Appraisal has been prepared by ECUS.

The site is comprised of semi-improved grassland, tall ruderal, standing water, hedgerows, swamp and quarry with the wider landscape being dominated by agricultural land, with a residential property to the west and some agricultural building structures located to the east

The Montgomery Canal is designated as a Special Area of Conservation (SAC) / Site of Special Scientific Interest (SSSI) for its aquatic emergent and marginal plant communities. There are five ancient woodland sites, one restored ancient woodland site, one plantation on ancient woodland site (PAWS) and one PAWS NRW priority area within 2km of the site. Due to the localised nature of the proposed works, the zone of influence (Zol) for non-statutory sites is likely to be restricted to those located adjacent to or within 200m of the Site, or those which have hydrological connectivity to the Site

Surface Water and Flooding

The majority of the site is located outside Flood Zone 2 and 3. A relatively small part of the site to the west is identified as being locating with a Flood Zone. No works are proposed within this area.

The proposals would create a new large pond and associated open water and other wetland habitats at the edge of the Montgomery Canal. A new control structure has been designed to regulate water flow and mimic water levels found in the canal.

4.0 Green Infrastructure Proposals

Green Infratructure Proposals

The key objectives of the GI proposals for the Wern Nature Reserve are to conserve and enhance existing habitats and create a mosaic of new open water, woodland and grassland habitats. The landscape and GI proposals for the scheme are summarised below:

- Creation of a substantial new pond adjacent to the Montgomery Canal, which would be designed to be naturalistic in appearance and form. The pond would have an irregular shoreline and sloping vegetated banks much like the existing nature reserve managed by the Canal & River Trust at Aston Locks. Water levels in the pond would be designed to mimic the canal. New naturalistic wetland planting would be designed to provide additional habitat to support biodiversity. It is anticipated that this would primarily comprise self-colonisation from the surrounding wetland habitats with some planting of native species including Luronium natans, a plant for which the Montgomery Canal is internationally protected
- New areas of woodland planting on higher ground to the south of the site and in the western part of the site would comprise a locally appropriate mix of native species and extend existing areas of woodland and tree planting. New planting would result in a net gain in tree cover locally
- Creation of landscaped habitat bunds in the southern and western sections of the site using some of the material excavated to create the pond would be designed to blend and connect with the surrounding topography and resemble natural landform. The height of bunds would be minimised and kept to a height of c1.6-2m. The bunds would be seeded and planted in order to soften their appearance and help them assimilate with their immediate landscape context
- Existing vegetation around the perimeter of the site would be retained and supplemented with new planting where appropriate. Whilst some minor hedgerow removal would be required to accommodate the proposed pond, the existing mature tree and its root protection area at the centre of the site would be protected as a result of careful siting of the waterbody

The landscape and green infrastructure (GI) proposals will establish an attractive framework within which to integrate a nature reserve, with the retention of existing landscape features and new additional features providing opportunities to strengthen local landscape character as well as biodiversity enhancements.

(above) The new pond has been carefully designed to allow for the retention of existing key landscape features such as mature trees

Management and Maintenance

All landscape areas would be managed and maintained in perpetuity by the Canal & River Trust to ensure the successful establishment, maintenance and monitoring of new and existing habitats.

Figure 4: Green Infrastructure Proposals

5.0 Green Infrastructure Evaluation

Building with Nature

This section provides an evaluation of the GI proposals using the Building with Nature (BwN) standards. Taken together, the BwN standards define 'what good looks like' by offering a set of quality standards for placemaking and place-keeping, covering the themes of wellbeing, water and wildlife.

- Core Standards 1-6
- Wellbeing Standards 7-8
- Water Standards 9-10
- Wildlife Standards 11-12

1. *Optimises Multifunctionality and Connectivity*

Landscape, Ecology and Arboricultural surveys have been undertaken to identify the GI features and ecological networks within the site and its surroundings. The new pond would provide a large area of open water habitat located adjacent to the Montgomery Canal. New planting includes areas of woodland planting and trees that would relate to existing areas of tree, hedgerow and woodland cover in the local landscape. Bird boxes, bat boxes and hibernacula would also be provided.

2. *Positively Responds to the Climate Emergency*

It is proposed to reuse excavated material on site wherever possible to create new connected bunded habitat and to minimise the amount of material taken off site. The GI proposals demonstrate how the scheme would result in a net gain in tree cover locally with associated benefits such as increased carbon sequestration in the medium term once planting has matured.

3. *Maximises Environmental Net Gain*

The new large pond has been designed to provide excellent habitat for aquatic plants and the nature reserve would be managed by CRT. The pond has been designed to comprise primarily open water habitat but a raised berm to the west would provide additional wildlife interest.

Aquatic plants will generally be permitted to colonise the new wetland naturally. Plant species are anticipated to include Luronium natans, a plant for which the Welsh section of the Montgomery canal is internationally protected for.

As detailed on the Green Infrastructure Plan, the nature reserve would also incorporate new native woodland planting, tree groups and individual trees, species rich grassland and wet grassland.

4. *Champions a Context Driven Approach*

The design process has had regard throughout to the location and surroundings of the new reserve. The layout and appearance of the new open water habitat and planting is strongly influenced by its rural context and setting. Whilst some minor tree and vegetation works would be required to allow for the construction of the open water habitat and control structure, the vast majority of the existing vegetation would be retained and supplemented with new native planting. The basin earthworks and proposed bunded habitat would be carefully profiled to blend with the surrounding landscape and topography.

The aim is for these new features to have a naturalistic appearance. As new planting establishes, this would further soften the form of the new pond and bunds and ensure these

features are well-integrated with the local landscape.

5. *Creates Distinctive Places*

The proposals have been designed to maintain the pleasant, open and rural aspect of the area. As noted above, the open water habitat would be allowed to colonise naturally and managed to ensure a locally appropriate and distinctive flora. The control structure would be designed to minimise impact on views from the towpath along the canal. Wherever possible, natural materials would be used in the works as appropriate for the location.

6. *Secures Effective Place-keeping*

The new reserve would be managed in perpetuity by the Trust in order to ensure the successful establishment and ongoing maintenance of new planting and habitats.

7. *Brings Nature Closer to People*

The nature reserve will be a low-key addition to the canal corridor. The existing Public Right of Way from Coppice Lane to the edge of the Montgomery Canal would be retained and diverted where it is necessary to facilitate construction of the new pond. Views towards the new open water and terrestrial habitats would also be possible from the towpath along the Montgomery Canal.

8. *Supports Equitable and Inclusive Places*

The Wern Reserve forms part of the broader Montgomery Canal Restoration Project, which would deliver a series of access improvements along this stretch of the canal.

9. *Delivers Climate Resilient Water Management*

The Wern Reserve would create a new large pond and associated open water and other wetland habitats at the edge of the Montgomery Canal, which is a designated SSSI. The control structure would regulate water flow and water levels within the pond would mimic those of the canal.

10. *Brings Water Closer to People*

See comment in relation to Standard 7 above.

11. *Delivers Wildlife Enhancement*

The nature reserve would deliver a connected network of open water and other wetland, woodland and grassland habitats. A Preliminary Ecological Appraisal (PEA) and Net Benefit Report have been prepared to accompany the application. The reports detail the proposed wildlife enhancements and benefits resulting from the proposed reserve.

12. *Underpins Nature's Recovery*

The proposed biodiversity enhancements include the provision of bird and bat boxes along with on site hibernacula and habitat piles. As noted above, the GI proposals include new wetland, woodland and grassland habitats that have been designed to extend and complement existing habitats within the site and its surroundings.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