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**Natural  
Resources**  
Wales

# Llyn Tegid Reservoir Safety Project



## Design and Access Statement

Version: 1.1

## Version History:

Document Version	Date Published	Project Stage
1.0	Aug-2019	<i>Draft - for NRW internal review</i>
1.1		<i>Informal NRW review</i>
2.0	Nov-2019	<i>Final draft – for NRW review</i>
3.0	Nov-2019	<i>Final – for consenting</i>

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## 1.0 Introduction

This document is the Design and Access Statement for Natural Resources Wales' (NRW) Llyn Tegid Reservoir Safety Project (the Project) and has been produced in support of the planning application.

Table 1.1: Llyn Tegid Reservoir Safety Project Planning application summary

<p><b>Application Type:</b> Full Planning Consent (Major application)</p>	<p><b>Location:</b> Llyn Tegid embankment, River Dee embankment and Afon Tryweryn embankment, Bala.</p>
<p><b>Applicant:</b> Natural Resources Wales</p> <p><b>Agent:</b> Black &amp; Veatch Ltd.</p> <p><b>Local Planning Authority:</b> Snowdonia National Park Authority (SNPA)</p>	<p><b>Description:</b> Protection to the Llyn Tegid northern lake embankment, and left bank of the River Dee, to allow safe overtopping during the design storm event. This will include reinforcement of landward embankment faces with a buried 3D geotextile mat ('Enkamat' or similar) and upgrading of existing rip-rap upstream slope protection on the lake embankment, with additional imported stone material. Also, resurfacing of footpath along lake embankment, left (north) bank of River Dee embankment and right (west) bank of Afon Tryweryn, and resurfacing of lakeshore overflow car park.</p> <p><b>Grid Reference:</b> NGR SH 92100 35500 to SH 92937 36265</p> <p><b>Site Area:</b> 5.8ha</p>

Section 42 of the Planning and Compulsory Purchase Act 2004 (as amended) requires that a statement covering design concepts and principles, as well as access issues, be submitted with an application for planning permission. The guidance contained in Technical Advice Note (TAN) 12 (updated 2016), The Town and Country Planning (General Development Procedure) (Amendment) (Wales) Order 2009, the CABE publication 'Design and Access Statements; how to write, read and use them', and Welsh Government guidance 'Design and Access Statements in Wales' have been drawn upon in the preparation of this statement.

This statement describes the proposals that are the subject of this planning application and should be read in conjunction with the following documents and drawings that accompany the planning application:

- Location Plan (Drawing 122918-BVL-Z0-00-DR-I-10001)
- Site (Block) Plans (Drawing 122918-BVL-Z0-00-DR-I-10002 to 10008)
- General Arrangement Plans (Drawings 122918-BVL-Z0-00-DR-C-10002 to 10007)
- Cross Sections and details (Drawings 122918-BVL-Z0-00-DR-C-10008 to 10016)
- Landscape Drawings:
  - Landscape overview plans*
  - § 122918-BVL-Z0-00-SK-L-00001 –Llyn Tegid – Environmental Mitigation and Enhancements
  - § **TBC** – Landscape Masterplan

#### *Seating Area enhancements:*

- § 122918-BVL-Z0-00-DR-L-00010 –Bandstand Seating Area Enhancements
- § 122918-BVL-Z0-00-DR-L-00011 –Seating Area nr Rugby Club Enhancements
- § 122918-BVL-Z0-00-DR-L-00012 – Pumping Station Seating Area Enhancements

- § 122918-BVL-Z0-00-DR-L-00013 – Y Bala Rhif 1 Seating Area Enhancements

#### *Leisure Centre and Car Park Area Enhancements*

- § 122918-BVL-Z0-00-DR-L-00014 – Leisure Centre and Car Park Enhancement Proposals

- § 122918-BVL-Z0-00-DR-L-00003 – Leisure Centre Enhancement Proposals

- § 122918-BVL-Z0-00-DR-L-00015 – Foreshore Car Park Enhancements

#### *Planting*

- § 122918-BVL-Z0-00-DR-L-00001 – Hedgerow Planting – Typical Arrangement

- Environmental Constraints and Opportunities Record (ECOR) Part A and Part B
- Preliminary Landscape and Visual Appraisal
- Tree Survey and Arboricultural Impact Assessment
- Tree Management Plan
- Viewpoint Photography and Illustrations
- Access Audit
- Ecology Reports, including Preliminary Ecological Appraisal; Aerial, Phase 1 and NVC Survey Report; Bat Roost Potential Survey Report; Bat Survey Report
- Water Framework Directive Assessment
- Habitats Regulations Assessment
- Environmental Action Plan
- Pre-Application Consultation Report

## **1.1 Decision Making Framework**

The Project is located within the administrative area of SNPA, which is the relevant local planning authority responsible for determining this planning application.

The modifications to the impounding structures at Llyn Tegid Reservoir fall within the descriptions of development in Schedule 2 (13) – Changes and Extensions, of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 ('the EIA Regulations'). The Project represents a change to a 'dam or other installation designed to hold water or store it on a long-term basis', such structures fall under the definition of an infrastructure project (Schedule 2 (10)).

The proposed modifications to the impounding structures at Llyn Tegid Reservoir were compared against the selection criteria set out in Schedule 3 of the EIA Regulations to determine whether EIA is needed. Following this process (see EIA Screening Opinion letter), it was suggested by NRW that EIA would not be required.

NRW submitted a request for a Screening Opinion from SNPA on 14 June 2018. A Screening Opinion was received from SNPA on 20 July 2018 confirming that EIA would not be required.

NRW have however produced a non-statutory Environmental Constraints and Opportunities Report (ECOR) in support of this planning application. This has been prepared by NRW to transparently demonstrate the application of environmental assessment and the principles of sustainable management of natural resources.

## 1.2 Land Ownership

Drawing 122918-BVL-Z0-00-DR-I-10001 shows the proposed red line boundary of the works. NRW does not own all of the land within the application boundary. Notice has therefore been served on all known landowners and site meeting held with them and their agents. This application is therefore supported by a Certificate B.

## 2.0 Background and Need for the Scheme

Llyn Tegid is a natural lake with approximately 2,950m of embankment at its northern end (including embankments along the River Dee and Afon Tryweryn). The existing water impounding structures date back to the 1950s and are generally earth embankments. Water levels are controlled by the Bala Sluices, which consist of 4 large vertical lift gates and an additional smaller gate for fish passage, and controls the combined outflow from Llyn Tegid and the Afon Tryweryn with a masonry weir/spillway acting as the overflow to the system. This allows Llyn Tegid to be used for flood control (as a reservoir), and to regulate the River Dee downstream.

Llyn Tegid is registered as a Category A Large Raised Reservoir under the Reservoirs Act 1975. As such there are additional legal duties on NRW which include formal inspection by an Inspecting Engineer (IE) from a Reservoir Panel (registered with DEFRA) and compliance with recommendations made by the IE within their report (known as a Section 10 report).

Following a Section 10 report in November 2014, modifications to impounding structures at Llyn Tegid are required to satisfy Measures in the Interest of Safety (MIOS). The outstanding MIOS related to this project, which are required to be completed by the 30/11/19<sup>1</sup>, are as follows:

(iii) works are carried out to safely accommodate the design storm and the associated still water flood surcharge and wave surcharge.

(iv) a seepage/ stability analysis be carried out on the embankments to try to predict how the embankments will behave in the design flood.

Therefore, the Llyn Tegid Reservoir Safety Project has been developed by NRW to ensure Llyn Tegid reservoir embankments continue to protect Bala into the future and that it is legally compliant with the Reservoirs Act 1975.

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<sup>1</sup> A more recent Section 10 Inspection was undertaken on 9<sup>th</sup> August 2019, primarily in response to maintenance concerns. The report from this visit is yet to be issued, but is expected to revise the date the MIOS are to be completed, taking account of investigations since 2014 and acceptable implementation timescales. Completion of the works is anticipated to be March 2022.



*Plate 1. Llyn Tegid looking west*

## **2.1 Environmental Baseline**

The Project consists primarily of protection to the Llyn Tegid northern lake embankment, and left bank of the River Dee, to allow safe overtopping during the design storm event. This will include reinforcement of landward embankment faces with a buried 3D geotextile mat and upgrading of existing rip-rap upstream slope protection on the lake embankment, with additional imported stone material.

This design has arisen from an options appraisal process, the starting point of which considered, in addition to the northern lake embankment and left bank of the River Dee, the left and right banks of the Afon Tryweryn. Figure 1 shows (marked as red lines) the extent of the embankments that have been considered within the appraisal process.



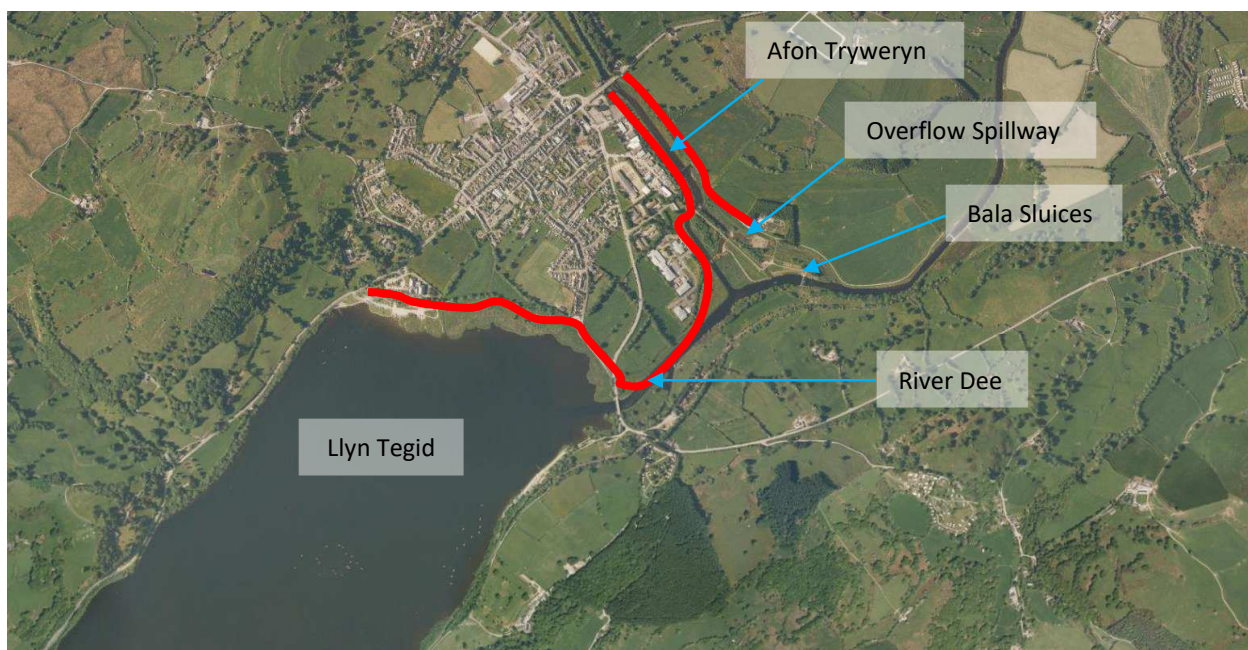


Figure 1 – Location of reservoir embankments and features.

A study area for collection of most environmental data was set at 2km from the outer geographical extent of the embankments for statutory designated sites and at 1km for other data.

Llyn Tegid is the largest natural lake in Wales and is located within, and contributes to, a highly valued and scenic area of the Snowdonia National Park. There are footpaths including Public Rights of Way (PRoWs) along the crest of the lake's embankments, which are well used all year round. Bala is a popular visitor attraction and important for the local economy. The lake and its associated watercourses, the River Dee (Afon Dyfrdwy) and Afon Tryweryn, are popular for anglers, water sports enthusiasts and other recreational activities. The proposals must be developed sensitively to minimise any potential impacts on these activities and the surrounding landscape.

The lake and associated watercourses are also of national and international ecological importance, protected under the River Dee and Bala Lake Special Area of Conservation (SAC), Llyn Tegid Ramsar site and two Site of Special Scientific Interest (SSSI) designations; Llyn Tegid SSSI covering the lake and River Dee SSSI covering the Afon Tryweryn and River Dee. The site is known for its population of a species of whitefish unique to the area (Gwyniad) and the only known UK population of the glutinous snail (*Myxas glutinosa*).

A series of four drawings have produced to map the key environmental constraints for the project (see ECOR), including:

- Population and Human Health
- Biodiversity and Nature Conservation
- Cultural Heritage
- Landscape Character

## 2.2 Project Objectives

The objectives for the project are summarised below:

- Ensure the Llyn Tegid reservoir embankments will continue to protect Bala in the future.
- Protect where possible existing features of nature conservation value and improve biodiversity through enhancements to existing habitats.
- Ensure the Project represents good value for money and is the lowest cost solution that also meets the regulatory, environmental and other project objectives, and achieves sign off on MIOS by All Reservoir Panel Engineers registered with DEFRA.
- Through Environmental Assessment and best practice, minimise impacts on: the environment, people and business.
- Meet sustainability requirements under the Environment (Wales) Act 2016 and Well-being of Future Generations (Wales) Act 2015 and deliver an overall positive benefit through the incorporation of wider benefits into the project.



*Plate 2. River Dee embankment looking southwest towards Llyn Tegid*



*Plate 3. Lake embankment looking north-west towards Penllyn Leisure Centre*



*Plate 4. Access onto lake embankment from Tegid Street with 'bandstand' in the distance*

## 3.0 Proposed Development

### 3.1 The Design Process

The design rationale for the project has been informed and constrained by:

- The frequency and scale of potential storm/flood events.
- The layout of existing impounding structures that need to be modified.
- The importance of providing robust, tried and tested solutions that can be safely and easily maintained.
- The need to provide suitable access for maintenance and maintain existing access for landowners.
- The need to ensure public safety and to provide a safe and secure working environment.
- The existing topographic, ground conditions and the surrounding landscape and above-ground features.
- Feedback from stakeholder engagement.
- The need to maintain areas of public amenity, and ecological and landscape connectivity.
- The desire to retain specimen trees of high landscape or ecological value.
- The aim to create better places for people and wildlife.
- The potential extension of the Bala Lake Railway, to not prevent future development and allow the extension to proceed with minimal work to the impounding structures.

Both 'long list' and 'short list' stage options appraisals were undertaken before the preferred option was identified. The preferred option was considered the most favourable under all the environmental and stakeholder criteria applied.

Following the identification of the preferred option, further detailed design was undertaken with input from statutory consultees and members of the public.

### 3.2 Location

The existing embankments stretch from a point just to the east of the A494 at SH 92100 35500, around two weirs on the Afon Tryweryn and up to Pont y Bala at SH 92937 36265.

The location is shown on Drawing 122918-BVL-Z0-00-DR-I-10001 (Location Plan).

### 3.3 Project Description

The project consists primarily of protection to the Llyn Tegid northern lake embankment, and left bank of the River Dee, to allow safe overtopping during the design storm event. This will include reinforcement of landward embankment faces with a buried 3D geotextile mat ('Enkamat' or similar) and upgrading of existing rip-rap upstream slope protection on the lake embankment, with additional imported stone material.

The proposed layout is shown on Drawing 122918-BVL-Z0-00-DR-I-10002 to 10008 (Site (Block) Plans).

#### **Protection of the River Dee embankment (left bank) will include:**

- A 6m wide berm installed on the landward / dry side toe along some sections of the embankment, increasing the ground levels typically by 300-400mm.

- Embankment protection will consist of a 3D geotextile membrane installed under the topsoil surface on the landward / dry side of the embankment, upon completion the surface will be grassed as existing. The protection will extend over the berm where present, or otherwise approximately 2m beyond the existing embankment toe line.
- There are no expected significant changes in the physical scale of the embankment itself, despite minor changes in crest levels to reinstate the 'as-built' levels where necessary, and the formation of the berm noted above (see cross sections on drawings 122918-BVL-Z0-00-DR-C-10012 – 10014).
- There will be tree and vegetation clearance required to enable works, mainly as a result of the construction of the berm.

**Protection of the northern lake (Llyn Tegid) embankment will include:**

- A 6m wide berm installed on the landward / dry side toe along some sections of the embankment, increasing the ground levels typically by 300-400mm.
- Embankment protection will consist of a 3D geotextile membrane installed under the topsoil surface on the landward / dry side of the embankment, upon completion the surface will be grassed as existing. The protection will extend over the berm where present, or otherwise approximately 2m beyond the existing embankment toe line.
- 'Rip-rap' works: rip-rap is artificially placed rock used to protect shorelines and river banks against scour and erosion. The existing slate stone rip-rap protecting the upstream (wet side) of the embankment will be removed and replaced with locally imported granite (or similar) stone, while existing granite will be re-used. Investigations have been undertaken to identify suitable sources of imported granite, with two sites in North Wales (one in Snowdonia) identified as potential sources. The removed slate will be reprocessed for use elsewhere on the site, such as infilling the bandstand area or constructing the berm. Proportionally the imported stone will make up approximately 80%-100% of the overall stone rip-rap. Visually this face of the bank will become harder (existing vegetation to be removed) and the stone will be 'rougher' / more angular, as required to improve performance in reducing wave energy.
- There are no significant changes in the physical scale of the embankment, however its appearance from some viewpoints will be 'harder' as a result of the replacement of rip-rap, the rip rap will be deeper and extend slightly further into the foreshore, and it will be part of a more open expansive landscape due to the loss of trees. Other aspects of embankment protection work will have very little visual impact and include minor changes in crest levels to reinstate the 'as-built' levels where necessary, and the formation of the berm noted above.
- The embankment at the 'bandstand' seating area will be realigned (see Figure 4); currently the alignment causes a concentrating effect of wave energy increasing stress on the embankment during storm events. This will result in some incursion into the ecologically protected lake foreshore (SSSI, SAC and Ramsar).
- The majority of existing trees, scrub and hedges will need to be removed to enable the works, including all trees growing within the rip-rap. Where possible trees which have been assessed to have particularly high landscape and amenity value (see Arboricultural Impact Assessment (Tree Solutions, 2019)), or particularly high ecological value (see Section 8 for list of ecological reports produced), have been retained.

## Environmental mitigation and enhancements integrated within the project

The project will deliver a range of environmental mitigation and enhancement works, which are summarised below. Refer to the landscape drawings as listed in Section 1 for further details of these works.

- Existing footpaths along the lake embankment (i.e. the PRow 'Y Bala Rhif 4'), River Dee embankment and Afon Tryweryn embankment (i.e. the PRow 'Y Bala Rhif 1'), will be improved in relation to good practice guidance for accessibility, including 'By all Reasonable Means' (BARM) (NRW, 2017), and the British Standard 'BS 8300-1:2018 - Design of an accessible and inclusive built environment (Part 1 – External Environment)'. These works have been informed by a comprehensive Access Audit for the works area, undertaken in accordance with BS8300-1 and BARM, and provided in Appendix A. Further details of these access improvements are provided below:
  - Y Bala Rhif 4 is currently surfaced with tarmac, and will be re-surfaced in tarmac, with regularised levels, improved surface quality (eliminating existing problems of tree roots damaging / uplifting surfacing) and reducing gradients where possible.
  - Y Bala Rhif 1 is currently surfaced with unbound stone, and will be resurfaced in tarmac, to a consistent 2m width.
  - Pedestrian access control barriers, where present within the construction area, will be removed where practical to do so, or replaced with more accessible solutions where possible.
  - Additional waymarker signage and seating will be provided for users of the PRowS.
  - Where ramps branch off the PRowS to provide access to the lake foreshore and other adjacent spaces, the gradients and widths of these will be optimised as much as possible, within site constraints.
  - An improvement will be delivered in terms 'clear walking tunnel' requirements, i.e. BS8300-1 and BARM specify vertical and horizontal clear space requirements for accessible routes, which are currently not achieved along Y Bala Rhif 4 due to low and overhanging branches; as a consequence of the required vegetation clearance works Y Bala Rhif 4 will become compliant with both BS8300-1 and BARM in this respect.
- Focus is given to footpath and access improvements between Penllyn Leisure Centre and the lakeshore car park, as a particularly popular and intensively used area, exploiting the benefits of the more open views created by the scheme. The open space to the south of the leisure centre will be enhanced with new hard and soft landscaping, new seating, and improved steps and ramped access; linked to this an existing ramp to the foreshore will be re-aligned and reconstructed to a significantly reduced gradient (see Figure 2).
- The lakeshore overflow car park (adjacent the Bala Adventure & Watersports building) is to be re-organised and re-surfaced, with a more efficient layout designed to optimise parking capacity within reduced hard surfacing and new soft landscaped / planted areas. There will be a net increase in soft landscape / decrease in hard surfacing as a result, delivering visual enhancements as well as practical improvements.

- Associated with the re-organisation of the lakeshore overflow car park, areas of wetland habitat within the protected SAC/Ramsar site which are currently in sub-optimal condition due to compaction from vehicles will be protected from further compaction enabling improvement to habitat condition.
- Tree and hedgerow planting will be delivered to mitigate for the tree and hedgerow clearance works.
  - More trees will be planted than are removed; the location of all tree planting is still to be confirmed, subject to in-going land owner discussions.
  - The species used will be native to the area and similar to those removed.
  - Replacement planting will focus on replacing the ecological function and value of the existing tree lines, with the aim to ensure no net loss in ecological resilience or connectivity.
- Management and long-term removal of invasive non-native plant species from the lakeshore and river embankments (Japanese knotweed and Himalayan balsam).
- Changes in grassland management to encourage greater floristic species diversity
- Installation of new and enhanced replacement seating and interpretative signage at key locations (see Figure 4).
- Proposed integration of artwork with the creation of a series of features carved from felled timber, using a local artist to create a locally meaningful narrative.

### 3.4 Construction Compounds

Temporary construction compounds are required for the duration of the construction process. The main construction compound (subject to landowner agreement) will be located on agricultural land between the B4391 and Tegid Street and will contain the main site office, welfare facilities and will be used for the storage of materials and plant. To provide sufficient access into the main construction compound off Tegid Street a section of the existing stone boundary wall will need to be removed. The section of wall to be removed will be sufficient to allow construction traffic and workers cars to access the site separately. The wall will be taken down by hand and reconstructed once the works are complete. The compound will be a total size of approximately 2.9ha (205 x 140m).

A smaller satellite compound will also be required to facilitate the resurfacing of the footpath along the embankment of the Afon Tryweryn. This satellite compound will be located on an area of grassland adjacent to the NRW office in the Bala Enterprise Park and will largely be used for storage of materials and plant. The compound will be a total size of approximately 1,300m<sup>2</sup> (30 x 42m).

The proposed locations of the construction compounds are shown on drawing 122918-BVL-Z0-00-DR-I-10001 in support of this planning application.

Upon completion of the works the construction compounds will be reinstated to their former use.

### 3.5 Construction Programme

Subject to planning permission and all relevant consents, construction is programmed to commence in late 2020 and will take up to 2 years to complete.

The proposed normal construction working hours will be 7am to 7pm, Monday to Friday. Out of hours works, if required, will be agreed in advance with the Local Authority Environmental Health Officer.

Sensitive timing of construction works to avoid conflicts with tourists/ leisure users and local events will be incorporated into the construction programme.

### **3.6 Environmental Action Plan**

The Environmental Action Plan (EAP) that accompanies this application summarises the measures that will be implemented to manage the environmental effects before, during, and after construction. The Environmental Clerk of Works (ECW) appointed by NRW will monitor compliance with the EAP.



## 4.0 The Design Component

The design component of this Design and Access Statement outlines the process that has been undertaken in the context of the physical, social and economic environment of the Llyn Tegid Reservoir Safety Project and surroundings. This includes descriptions of the amount and density of development proposed, the layout, the scale of the development, appearance and landscaping.

### 4.1 Amount of Development

The total area of the Project, excluding temporary working areas, is approximately 5.2 hectares. The footprint, location and amount of development are dictated by the existing impounding structures and their function to allow safe overtopping during the design storm event; the need to carry out regular routine maintenance; and the requirements of health and safety legislation.

Through consultation with Bala Lake Railway Trust, the design of the Project has been modified to include the installation of a concrete trough laid along the route of where a potential extension to the railway would run along the lake embankment (approximately 400m in length) (see drawing 122918-BVL-Z0-00-DR-C-00002). This concrete trough will be set into the embankment such that the tops of the edging kerbs will be level with the embankment crest. Grass will be reinstated within the trough such that the kerb lines will be the only visible element. There will be no rails installed in the concrete trough. The design ensures that only minimal work will be required to the impounding structures and their performance would not be detrimentally affected, should the railway extension go ahead. The development of an extension to the Bala Lake Railway would be subject to a separate planning application by another party, separate to NRW.

The size (amount) of development within the Project is therefore no greater than needed to satisfactorily address the outstanding MIOS required under the Section 10 Report, whilst incorporating the associated environmental mitigation and enhancement works as described in section 3.2 and ensuring the long-term safety of the impounding structures should the extension to the Bala Lake Railway be taken forward.

### 4.2 Layout

The layout is dictated by the layout of the existing impounding structures that need to be modified. The 6m wide berm will be installed on the landward / dry side toe along some sections of both the lake and River Dee embankment. Rip-rap works are required along the length of the upstream / wet side of the lake embankment, approximately 700m.

Drawings 122918-BVL-Z0-00-DR-I-10002 - 10009 show the proposed site layout.

Drawing 122918-BVL-Z0-00-DR-C-00002 shows the modifications incorporated into the design of the Project to ensure only minimal work is required should the extension to the Bala Lake Railway proceed.

### 4.3 Scale

The existing embankments along the northern shore of Llyn Tegid, left (north) bank of the River Dee and the right (west) bank of the Afon Tryweryn are approximately 1800m in length. Where necessary, minor changes to the crest levels of the embankments will be made to reinstate the 'as-built' levels. A 6m wide berm will be installed on the landward / dry side toe along some sections of the embankment, increasing the ground levels typically by 300-400mm.

The realignment of the lake embankment at the 'bandstand' and the upgrading of the rip-rap will result in approximately 2,880m<sup>2</sup> of land take from the designated SAC / Ramsar / SSSI site. The realignment is necessary as the current alignment causes a concentrating effect of wave energy, increasing stress on the embankment during storm events. An Appropriate Assessment in accordance with the Conservation of Habitats and Species Regulations 2017 has been provided by NRW which concluded that there was no direct impact on conservation features (see Record of a Habitats Regulations Assessment of a project).

Rip-rap upgrading is required along the length of the upstream / wet side of the lake embankment, approximately 700m.

The scale of the development is determined by the need to ensure that safe overtopping during the design storm event is achieved and wave energy is effectively managed. There is no significant change proposed to the overall scale (vertical height or footprint) of the embankments; any increases in height are negligible, and the addition of a stability berm, at a width of approximately 6m and an increase in levels of 300-400mm, is not considered likely to read as a significant increase in the scale of the structures - once grassed over the berm will largely blend into the adjacent landscape. The landscape setting, featuring extensive and highly scenic views across Llyn Tegid toward Cadair Idris, may be described as monumental.

### 4.4 Appearance

The embankments along the northern shore of Llyn Tegid and left bank of the River Dee are existing structures, and there will only be relatively minor changes in their physical form as a result of the proposed modifications.

The rip-rap works to the northern shore (wet side) of the lake embankment will involve removal and replacement of the existing slate stone rip-rap with imported granite (or similar) stone. There is some, limited, granite within the existing rip-rap, which will be re-used. The removed slate will be reprocessed for use elsewhere on the site where possible, such as for infilling the bandstand area, constructing the berm, and stone wall construction.

Proportionally the imported stone will make up approximately 80%-90% of the overall stone rip-rap. Visually this 'wet' face of the embankment will become harder (all of the existing vegetation which has colonised the existing slate rip-rap is to be removed) and the stone will be 'rougher' and more angular, as is required to improve performance in reducing wave energy. The project team has undertaken visits to local quarries and obtained samples of potential stone, which has been considered in terms of its appearance as well as engineering performance.

The removal of trees and other vegetation, including all those trees growing amongst the existing rip-rap, is likely to constitute the most notable change in appearance resulting from the project. This will mostly affect localised receptors with north facing views across the lake towards the northern embankment, such as views from Bala Sailing Club, Bala Lakeside Hotel and Bala Railway on the north east lake shore, views from the A494 alongside the north west lake shore, and views from the north shore and from within the lake itself. Whilst the loss of trees and vegetation will be clearly noticed in these views, it is not considered that this will result in a significant impact on visual amenity. The visual amenity provided by Llyn Tegid and its wider landscape context is not considered to be heavily dependent on the tree line along this embankment. Further, the vegetation and trees which are retained and replanted, and the continued presence within these views of unaffected trees and hedgerows further to the north, will limit the visual change. There are relatively few visual receptors with south facing views toward the lake that would be affected by the tree loss, and from this perspective the visibility of Llyn Tegid itself is arguably the more important aspect of visual amenity.

The document *Viewpoint Photography and Illustrations* (Appendix B) includes panoramas from a number of viewpoints, with annotated versions and artist's 3D illustrations to help visualise the key changes in appearance.

View 01 is taken from the lake foreshore parking area, adjacent the Bala Adventure and Watersports Centre. The annotations and illustration highlight the effect of the removal of trees and vegetation from the embankment face, opening up views to / from the Penllyn Leisure Centre. It also shows the enhancements to the lakeside informal parking area, and access improvements with the replacement of the existing ramp between foreshore and embankment. The illustration from this viewpoint is shown below.



Figure 2: Illustration (View 01)

View 02 is taken from the crest of the lake embankment, adjacent Penllyn Leisure Centre. This again highlights the effect of the removal of trees and vegetation from the embankment face, opening up views to / from the Penllyn Leisure Centre. It also indicates the improvements to the lakeside informal parking area, and enhancements to the open spaces immediately south of the Leisure Centre. The illustration from this viewpoint is shown below.



Figure 3: Illustration (View 02)

View 04 is taken from crest of the Llyn Tegid embankment adjacent the B4391 (Tegid Street), looking North West toward the 'Bandstand' seating area and Rugby Club beyond. This viewpoint shows the only location within the scheme where there is a proposed change to the alignment of the existing embankment. The images provided illustrate the effect of this change, along with the interaction of the proposed route of the Bala Railway extension. It also shows the removal and replacement of the existing seating area, and the effect of the loss of vegetation resulting from the embankment protection works. The illustration from this viewpoint is shown below.



Figure 4: Illustration (View 04)

The other views provided in the document *Viewpoint Photography and Illustrations* (Appendix B) are represented by existing and annotated photographs but not illustrations. They are:

- View 3 - from the Public Right of Way *Y Bala Rhif 4*, looking West along crest of Llyn Tegid embankment, with the Rugby Club on the right-hand side. This highlights the loss of trees and vegetation in a densely vegetated section of the embankment. The existing hedge within the dry side of the embankment is to be replaced with a new hedge offset from the new embankment toe line
- View 5 - from the crest of the Dee embankment, on the Public Right of Way *Y Bala Rhif 1* looking north east, with the River Dee on the right-hand side. This highlights some vegetation loss on the dryside of the embankment due to the need to install erosion protection 'Enkamat' and also formation of a stability berm. It also highlights enhancements to grassland habitat and footpath surfacing.

Besides visual appearance, the effects of tree and vegetation clearance also impact on local micro-climates. The PRow along the northern embankment crest is heavily sheltered by the existing tree cover, which will no doubt be welcome by users of the footpath in hot weather; this benefit will be lost with the tree removal. However, the extent of tree cover has also created a heavily shaded micro-climate; increasing levels of natural light through tree clearance is likely to be beneficial in some locations. For example, the south facing elevation of the Penllyn Leisure Centre and its external spaces and public café areas are likely to become more attractive from a reduction in the extent of shade and screening from the proposed tree clearance; increasing the natural light levels to such areas whilst also opening up scenic views across Llyn Tegid may help encourage positive use and enjoyment of these spaces, with benefits to public wellbeing (see Figure 3). Landscape enhancement drawing 122918-BVL-Z0-00-DR-L-00014 includes further enhancements to the open spaces immediately south of the Leisure Centre which, along with the more open views, are designed to promote more active public use.

The installation of a concrete trough to provide integration of this scheme with the proposed extension of the Bala Railway (see figure 4 and drawing 122918-BVL-Z0-00-DR-C-00002) will also result in some minor landscape and visual effects. This concrete trough will be set into the embankment such that the tops of the edging kerbs will be level with the embankment crest. These kerb lines may appear rather incongruous in the absence of the actual railway track, however the space between them will be grassed, and it is likely that the grass would eventually grow over and conceal the kerbs, therefore if there were a long or indefinite delay to the delivery of the Bala Railway extension this element of the scheme is unlikely to result in any long term visual effects.

Landscape architects' and environmental specialists' input to the project throughout the process have influenced options appraisal and helped to integrate the engineering solutions with the local environment, following principles of Sustainable Management of Natural Resources to the extent possible within the scope of the engineering scheme. This process has resulted in measures to reduce tree loss where possible, along with identifying opportunities for environmental enhancements, and consideration of local materials and appearance. Where possible, landscape enhancement proposals have incorporated sustainable re-use of slate from the existing embankment rip-rap. Figure 5 below illustrates 'precedent images' that have been used to inform concept development of the landscape enhancement proposals.



Figure 5: Precedent images used to inform landscape enhancement concepts and materials

### *Environmental sustainability*

The ECOR has been produced to transparently demonstrate the application of environmental assessment and the principles of sustainable management of natural resources. The following sub-section summarises how this has influenced the design of the Project including mitigation and environmental enhancements.

The Preliminary Landscape and Visual Appraisal (Doc. No.122782-BVL-Z0-00-RP-I-00014) concluded that the general nature and scale of the Project might be described as ‘accelerated management and protection’ of the existing infrastructure, rather than a major change or development of the existing infrastructure. Despite the expected changes in appearance from tree losses, as described above, which are understood to have provoked some concerns amongst some groups and individuals within the local community, the tree and vegetation clearance involves a return to something more similar to the original ‘as-built’ appearance of the reservoir embankment. Overall, in Environmental Impact Assessment terms, it is considered that there are no likely significant adverse landscape or visual impacts from the project. The opening up of highly scenic views across the lake and beyond for users of the PRow and adjacent receptors, including users of Penllyn Leisure Centre can be seen as a positive visual effect.

A series of ecology surveys have been undertaken throughout the Project area including species specific surveys for bats (see the ECOR for further details). There is considerable bat activity in the area including foraging and commuting bats. Due to the large areas of pasture, other lines of trees and hedgerow, and small areas of woodland close to the proposed works, it is unlikely that the loss of trees as a result of the proposed works will have a significant impact on foraging, however, there may be some impact from the loss of flight lines/commuting corridors resulting from the felling of trees.

A mitigation planting strategy has been developed which focusses on replacing the ecological function and value of the existing tree lines, with trees of particularly high landscape or ecological value being retained where possible. Recommendations taken from the ecology surveys have been incorporated into the mitigation planting strategy. This aims to ensure no net loss in ecological resilience or connectivity.

As part of the environmental enhancements incorporated into the development, the lakeside overflow car park will be resurfaced with crushed stone (potential to re-use slate from the existing rip-rap) and a slightly more formalised and efficient layout established, which will allow for adjacent areas of wetland habitat to be restored to SAC/Ramsar habitat, rather than being used occasionally for parking (see figures 2 and 3).

### *Sustainable drainage systems*

The PRowS which run along the crest of the embankments will be resurfaced with tarmac to improve accessibility to all users. For the PRow along the lake embankment this will not change the existing surface treatment and will not introduce a new impermeable layer. For the PRow along the River Dee and Tryweryn embankments these are currently surfaced with unbound stone, therefore resurfacing with tarmac will add an impermeable layer to the existing embankments. However, this is not considered to have a material change on the drainage characteristics of the existing structures.

The surfacing used for the modifications to the overflow car park will be similar to existing, i.e. permeable unbound stone, albeit a smaller area due to the more efficient use of space by formalising the parking arrangements. In line with principles of Sustainable Management of Natural Resources, it is intended that the existing slate rip-rap material will be crushed and re-used for this purpose. The car park proposals also include a shallow planted swale to receive surface water drainage, as well as adding biodiversity value. The work is therefore not considered to have a material change on the drainage characteristics of the existing overflow car park. The Project will not introduce any other hard surfaces, any new buildings or any new structures and is therefore considered acceptable against national standards for sustainable drainage systems (SuDS).

A separate application to Gwynedd Council as SuDS Approval Body will be made alongside the planning application in accordance with Schedule 3 of the Flood and Water Management Act 2010.

## 4.5 Landscape

Extensive tree loss is unavoidable to facilitate these essential reservoir safety works. The design solution was however selected and developed through an options appraisal process which was strongly influenced by environmental assessment: the preferred option that was selected was the one with the least overall environmental impact. The design of this option has subsequently been developed, within the constraints of the functional requirements of the scheme, to avoid tree loss where possible. Design modifications have, where possible, been made to avoid the loss of a number of trees which have been assessed by the project Arboricultural Consultant, Landscape Architects and Ecologists to have particular landscape and amenity value, or particular ecological value.

Landscape proposals have been developed to replace trees removed to facilitate development; these will be replaced with similar species and those native to the area. Wherever possible new trees and plants will be sourced locally, and the risks posed by potential new pests and diseases will be reviewed throughout the design and construction process and best practice applied.

Tree and hedgerow planting have been designed to improve connectivity for various species of mammal (including bats and rodents), bird, amphibian and reptile.

The landscape proposals are shown on the landscape drawings as listed in Section 1. Landscape and environmental mitigation and enhancements works are outlined in section 3.2.



## 5.0 The Access Component

The access component of this document aims to explain the pedestrian, vehicular and transport links to the development and how the principles of inclusive design, including the specific needs of disabled people, have been integrated into the Project.

These works have been informed by a comprehensive Access Audit for the works area, undertaken in accordance with British Standard '*BS 8300-1:2018 - Design of an accessible and inclusive built environment (Part 1 – External Environment)*' and '*By all Reasonable Means*' (BARM) (NRW, 2017), to identify existing access issues and potential improvements which can be made as part of the Project (see Appendix A).

### 5.1 Construction Access

The primary construction compound is proposed to be located on agricultural land between the B4391 and Tegid Street, with a secondary satellite compound location adjacent to the NRW office in the Bala Enterprise Park.

A Traffic Management Plan for the proposed construction works will be prepared and implemented prior to works commencing on site. This will detail the construction vehicle access routes, timing of deliveries and contingency measures for emergency access to ensure minimal disturbance to the road network and local communities.

All construction traffic will access both construction compounds via the B4391, from the A494 or A4212 at the entrance into Bala, this will reduce the volume of construction traffic travelling through the centre of Bala.

The eastern end of the lakeshore embankment will be accessed from the primary construction compound crossing Tegid Street and using the existing access onto the lakeshore just north of the 'bandstand'.

The western end of the lakeshore embankment will be accessed through the lakeshore car park off Pensarn Road (A494). This will require construction traffic to travel through the centre of Bala to access the working area. To reduce construction traffic travelling through the centre of Bala, the number of construction vehicles used will be limited to the minimum required to complete the work. It is anticipated that construction works will take place in a phased approach, therefore access to the western end of the lakeshore embankment will not be required for the full duration of construction.

The lakeshore car park will not be used for the storage or laydown of materials and plant, and any parking of light goods vehicles will take place in the overflow car park area to the east of the main car park. The project design includes for the resurfacing of the overflow car park creating a more efficient and formal layout.

The River Dee embankment will be accessed from the primary construction compound via Tegid Street and the B4391 using existing access onto the embankment and existing accesses either side of the embankment.

Access to the works along the crest of the embankment on the right (west) bank of the Afon Tryweryn will be from the satellite compound at Bala Enterprise Park using the existing footpath along the embankment.

Pedestrian and cycle access will be retained wherever reasonably practical during construction. Some temporary closures and diversions will be required, for example where routes run along the crest of embankments. Where this is the case, permission

will be sought from the Local Authority for temporary closure and any closures and diversion routes will be clearly signed. The duration and length of all temporary footpath closures will be minimised wherever possible. It is anticipated that construction works will take place in a phased approach with work being completed on each section of embankment before moving to the next, this will ensure that the entire length of footpaths will not be closed/ diverted throughout construction.

The timing and phasing of construction works will seek to avoid conflict with tourists and leisure users, with access being maintained to Penllyn Leisure Centre, Bala Adventure and Watersports, the lakeshore carpark Bala Rugby Club and Bala Lake Railway throughout, with construction works temporarily paused where access restrictions may inhibit local events to ensure they continue unhindered.

## 5.2 Access to the Completed Development

The Project has been designed to be low maintenance where possible and access for planned inspections and maintenance will generally be via the existing road network and footpath network. Where necessary, such as on the wet side of the lake embankment, access has been included for NRW operatives to carry out routine inspections and maintenance.

When a storm/flood event occurs, it is possible that some footpaths along the crest of both the lake and River Dee embankments may become impassable, along with access to the lakeshore car park. This is the same as the existing scenario.

Section 3.2 describes, under environmental mitigation and enhancements, improvements to the existing footpath infrastructure, in relation to accessibility good practice guidance and standards. Overall these will deliver an increased level of public accessibility throughout the project area through a range of measures including improved footpath surfaces, reduced ramp and slope gradients, increased widths, increased vertical clear space, removal and/or improvements in access control barriers, provision of additional seating and signage.

The lakeside overflow / informal parking area will be re-organised and resurfaced, with a more efficient layout more clearly designating parking bays, broken up with areas of soft landscaping and tree planting. This will reduce the overall area of hard surfacing whilst allowing for habitat restoration within the SAC/Ramsar protected site area. Plate 5 below indicates the existing informal parking area. Track marks are clearly visible throughout the vegetated waterside areas on the left of the image; these habitat areas will benefit from the new parking area enhancement scheme, which limits access through these wetland habitat areas. Figure 6 is an analysis of the existing parking areas which was produced during the design development of this enhancement.



Plate 5. Aerial (drone photograph) view of existing overflow car park

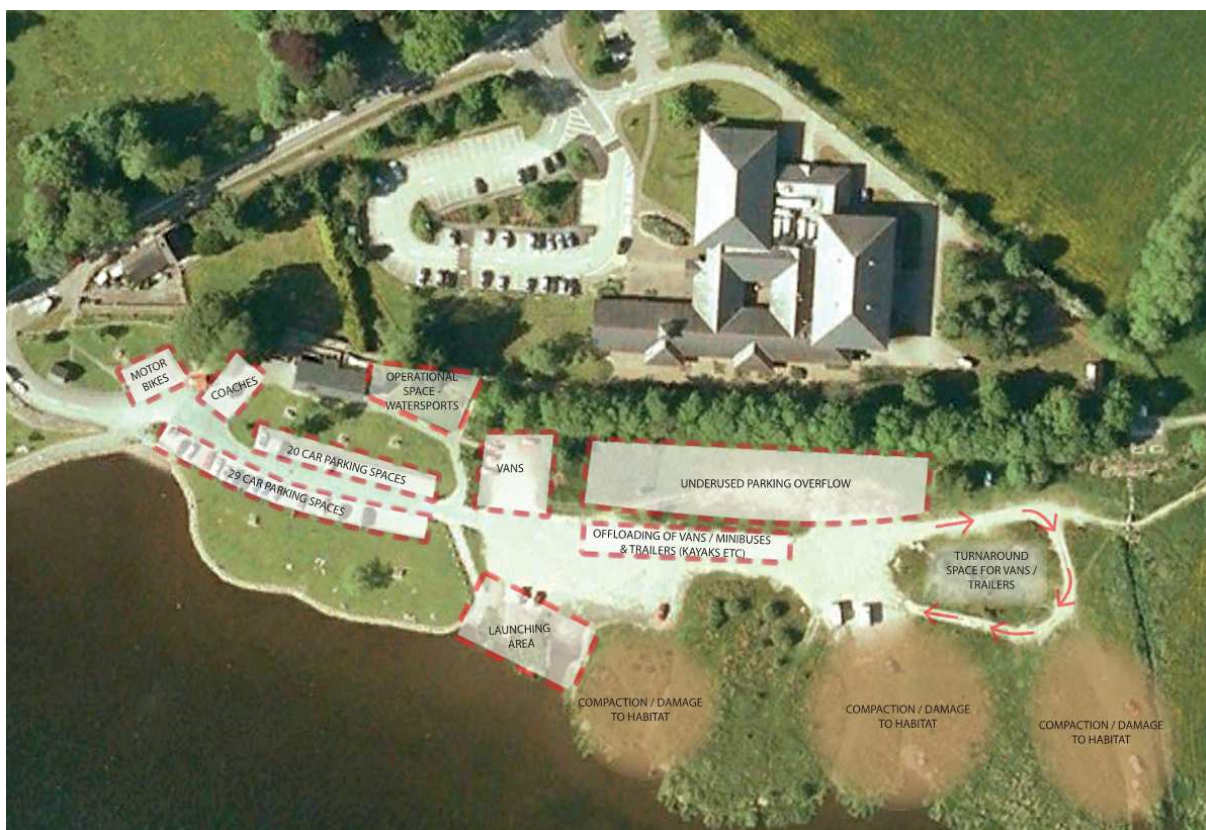


Figure 6: Analysis of existing lake foreshore parking areas

As shown on Figures 2 and 3, the access between the lakeside parking area and the Penllyn Leisure Centre / adjacent open spaces / parking area will also be improved. A new gently sloping access from the Leisure Centre car park up to the embankment crest will be provided, which will link up with a new ramp from the embankment crest down to the foreshore. This physical access improvement, combined with much greater visual connection, has the potential to increase the level of public use and benefit in this area.

### **5.3 Community Safety**

The Project comprises modifications to the existing impounding structures at Llyn Tegid Reservoir and as such will not result in a major change or development, it is therefore considered that there will be no detrimental effect on community safety as a result. It should be noted however that the removal of trees along the lakeshore embankment will open up views and increase light levels along the embankment footpath. The resurfacing of existing footpaths, replacement of gates and additional interpretation and signage will ensure that the area is accessible to all and easy to navigate.

During construction there will be a slight increased risk of flooding while rip-rap is removed from the embankment. This risk is reduced using a phased construction programme where one section of embankment is complete before moving onto the next. Flood risk will be controlled through the development of an Emergency Response Plan and a Flood Risk Activity Permit will be applied for prior to commencement of works.

## 6.0 Planning Policy

This section describes how the Project meets the needs of national and local planning policy in terms of:

- Acceptability of the proposed development
- Biodiversity
- Landscape and Visual Amenity
- Human Population and Health
- Sustainable Management of Natural Resources

This statement should be read in conjunction with other documents submitted in support of this planning application, in particular the ECOR.

Planning decisions are made in accordance with the Development Plan, unless material considerations indicate otherwise. The following policies and plans are relevant to the Project.

It should be noted that the Project has been developed by NRW in accordance with its statutory duties with regards to the Reservoirs Act 1975.

### 6.1 National Policy

The Welsh Government set out national planning policy in Wales. Chapters of the National Policy of relevance to the Project include:

- Chapter 3 – Strategic and Spatial Choices
- Chapter 4 – Active and Social Places
- Chapter 5 – Productive and Enterprising Places
- Chapter 6 – Distinctive and Natural Places

Planning Policy Wales (Edition 10, December 2018) is supplemented by 24 Technical Advice Notes (TANs) which planning inspectors should consider when deciding on called-in planning applications. The TANs of potential relevance to the Project are:

- TAN 5 – Nature Conservation and Planning
- TAN 11 – Noise
- TAN 12 – Design
- TAN 13 – Tourism
- TAN 21 – Waste

### 6.2 Local Policy

The Eryri Local Development Plan 2016-2031 was formally adopted as planning policy on 6<sup>th</sup> February 2019. This forms part of a range of plans, policies and programmes which have an influence over development within Snowdonia National Park. Policies within the Local Development Plan of relevance to the Project are:

- Strategic Policy A – National Park Purposes and Sustainable Development (SPA)
- Strategic Policy B – Major Development (SPB)
- Development Policy 1 – General Development Principles (DP1)
- Strategic Policy D – Natural Environment (SPD)
- Development Policy 2 – Development and the Landscape (DP2)

- Strategic Policy Dd – Climate Change (SPDd)
- Strategic Policy H – A Sustainable Rural Economy (SPH)
- Strategic Policy I – Tourism (SPI)
- Development Policy 21 – Tourism and Recreation (DP21)
- Strategic Policy L – Accessibility and Transport (SPL)
- Development Policy 25 – Visitor Car Parking (DP25)

In addition to the policies contained within the Local Development Plan, Supplementary Planning Guidance (SPG) notes are also available. These do not form part of the adopted plan but have been the subject of both a formal council resolution and public consultation. The Welsh Assembly Government has confirmed that following public consultation and subsequent LPA approval, SPG notes can be treated as a material planning consideration. SPG notes of relevance to the Project are:

- Sustainable Design in the National Parks of Wales
- General Development Considerations
- Nature Conservation and Biodiversity
- Landscape and Seascapes of Eryri
- Enabling Sustainable Development in the Welsh National Parks
- Landscape Sensitivity and Capacity Assessment

### **6.3 Assessment against Planning Policy**

Table 6.1 considers the principle of development and addresses the relevant planning and environmental issues in relation to national and local planning policy.

**Table 6.1: Assessment of the Project against Planning Policy**

Issue	Relevant planning policy	Comment
<p><b>Acceptability of the Principle of Development</b></p>	<p><b>Planning Policy Wales:</b> Chapter 3</p> <p><b>Technical Advice Notes:</b> TAN 12</p> <p><b>Eryri Local Development Plan:</b> SPA, SPB, DP1</p>	<p>Llyn Tegid is registered as a Category A Large Raised Reservoir under the Reservoirs Act 1975. The purpose of the Project is to ensure that the Llyn Tegid reservoir embankments continue to protect Bala in the future.</p> <p>The proposed design respects the site and surroundings in terms of siting, layout, scale, form, character, materials and aspect; protects the natural environment where possible and does not unacceptably affect public views.</p> <p>The town of Bala will benefit from the improved safety from the modifications to the impounding structures; and enhancements to PRowS and the overflow car park will provide improved access to the lake and surrounding area.</p>
<p><b>Landscape and Visual</b></p>	<p><b>Planning Policy Wales:</b> Chapter 3 Chapter 6</p> <p><b>Technical Advice Notes:</b> TAN12</p> <p><b>Eryri Local Development Plan:</b> SPA, SPB, DP1, DP2</p>	<p>The Preliminary Landscape and Visual Appraisal (Doc. No.122782-BVL-Z0-00-RP-I-00014) concluded that the general nature and scale of the Project might be described as ‘accelerated management and protection’ of the existing infrastructure, rather than a major change or development of the existing infrastructure. Despite some noticeable changes in appearance which could give rise to local interest and concern, the greatest visual changes involve a return to something more similar to the ‘as-built’ appearance, and it is considered that there are no significant adverse landscape or visual effects from the Project. The removal of vegetation along the lake embankment will result in opening views up across the lake for users of the PRow and adjacent receptors, including users of Penllyn Leisure Centre, which can be seen as a positive visual effect.</p> <p>A landscape planting plan has been developed which details the replacement and additional hedgerow and tree planting incorporated into the design of the Project.</p>
<p><b>Biodiversity</b></p>	<p><b>Planning Policy Wales:</b> Chapter 6</p> <p><b>Technical Advice Notes:</b> TAN5</p> <p><b>Eryri Local Development</b></p>	<p>A series of ecology surveys have been undertaken throughout the Project area including species specific surveys for bats (see the ECOR for further details). There is considerable bat activity in the area including foraging and commuting bats. Due to the large areas of pasture, other lines of trees and hedgerow, and small areas of woodland close to the proposed works, it is unlikely that the loss of trees as a result of the proposed works will have a significant impact on foraging, however, there may be some impact from the loss of flight lines/commuting corridors resulting from the felling of trees.</p>

	<p><b>Plan:</b> SPA, SPB, DP1, SPD, SPDd</p>	<p>A mitigation planting strategy has been developed which focusses on replacing the ecological function and value of the existing tree lines, with trees of high landscape or ecological value being retained where possible. Recommendations taken from the ecology surveys have been incorporated into the mitigation planting strategy. This aims to ensure no net loss in ecological resilience or connectivity.</p> <p>As part of the environmental enhancements incorporated into the development, the lakeshore overflow car park will be resurfaced and a more formal and efficient layout established, this will allow for unused edges to be restored to SAC/Ramsar habitat.</p> <p>Other environmental enhancements include the provision of bat and bird boxes, additional tree and hedgerow planting in strategic locations close to the Project area, management of grassland areas to increase plant and invertebrate diversity, and the management and removal of invasive non-native plant species from the lakeshore and riverbanks.</p>
<p><b>Human population and amenity</b> (including noise, air quality, transport, tourism and recreation)</p>	<p><b>Planning Policy Wales:</b> Chapter 3 Chapter 4 Chapter 5</p> <p><b>Technical Advice Notes:</b> TAN 12 TAN 11 TAN 13</p> <p><b>Eryri Local Development Plan:</b> SPA, SPB, DP1, SPH, SPI, DP21, SPL, DP25</p>	<p>The Project has been designed to respect the site and its surroundings, in particular those areas that are valued by local residents and aims to improve the amenity where possible.</p> <p>Pedestrian and cycle access will be retained wherever reasonably practical during construction. Some temporary closures and diversions will be required, for example where routes run along the crest of embankments. Where this is the case, permission will be sought from the Local Authority for temporary closure and any closures and diversion routes will be clearly signed. The duration and length of all temporary footpath closures will be minimised wherever possible.</p> <p>A new footpath is proposed between Penllyn Leisure Centre car park and the lakeshore car park, which will replace the existing footpath. This footpath has been designed to have a gradient no greater than 1 in 12 and will be tarmac surfaced. The existing footpaths along the lakeshore embankment, River Dee embankment and Afon Tryweryn embankment will be resurfaced with tarmac and existing gates replaced to ensure that access to all users is provided in accordance with NRW's 'By all reasonable means' guidance document.</p> <p>A Traffic Management Plan for the proposed construction works will be prepared and implemented prior to works commencing on site. This will detail the construction vehicle access routes, timing of deliveries and contingency measures for emergency access to ensure minimal disturbance to the road network and local communities. All construction traffic will access both construction compounds via the B4391, from the A494 or A4212 at the entrance into Bala, this will avoid construction traffic travelling through the centre of Bala.</p>



		<p>In accordance with TAN 11, the EAP includes measures to avoid and reduce the potential impact upon amenity during construction work, including: restricted working and delivery hours; use of appropriately sized and well-maintained equipment, and switching off machinery that is not in use. It is also planned for construction to commence in September 2020 after the busy summer season.</p> <p>Good site practice will be employed during construction to minimise the generation of dust during earth moving and storage. This will include methods such as road sweeping and dust suppression methods for example, topsoil stockpiles will be compacted and dampened down if required to prevent dust generation.</p>
<p><b>Sustainable management of natural resources</b></p>	<p><b>Planning Policy Wales:</b> Chapter 3 Chapter 5 Chapter 6</p> <p><b>Technical Advice Notes:</b> TAN 12</p> <p><b>Eryri Local Development Plan:</b> SPA, DP1, SPH</p>	<p>The Project has been designed with the principles of sustainable development in mind.</p> <p>The town of Bala will benefit from the improved safety from the modifications to the impounding structures, and enhancements to PRoWs and the overflow car park will provide improved access to the lake and surrounding area.</p> <p>The Project has been designed so that, in the event that the Bala Lake Railway extension proceeds, minimal work will be required to the impounding structures to allow development to take place and their performance will not be detrimentally affected.</p> <p>The following features will be implemented to ensure that waste is minimised and re-use of materials is maximised during construction.</p> <ul style="list-style-type: none"> <li>- Preparation and implementation of a Site Waste Management Plan;</li> <li>- Re-use of excavated material (including slate rip-rap) wherever possible within the development to minimise the use of imported fill;</li> <li>- Where imported fill is required, it will be sourced locally;</li> <li>- Imported granite for the rip-rap will be sourced locally.</li> </ul>

## 7.0 Public Consultation

Consultation has taken place throughout the development of the Project with statutory bodies (e.g. Snowdonia National Park Authority, NRW, Cadw, etc), local community groups and businesses, the public and other interested parties. Their views, opinions, expertise and understanding have influenced the design of the Project as detailed in Appendix A of the ECOR, the Pre-application Consultation Report and the Public Consultation Report, and have influenced:

- Changes in design to reduce the number of trees removed and development for replacement planting plans, including sourcing trees from local nurseries
- The development of the design for the formalisation of the overflow car park and the enhancements to Penllyn Leisure Centre
- Development for PRow and permissive footpath improvements including improvements to accessibility in line with NRW's 'By all reasonable means' guidance document
- The opportunity to establish wildflower areas along the Dee and Tryweryn
- The construction programme to avoid starting construction during the busy summer season and avoid conflicts with local events.

A public exhibition took place on 18<sup>th</sup> July 2018 whilst the Project was at its outline design stage and a preferred option had been selected. Feedback was generally positive with some concerns raised over tree removal and construction disruption on the local community and tourism.

Formal pre-application consultation was undertaken in accordance with the Planning (Wales) Act 2015 for the period 27<sup>nd</sup> November 2019 through to 10<sup>th</sup> January 2020 (inclusive). Pre-application consultation made the documents to be submitted for planning available to view for a 28 day period. Consultation responses were received with changes to the Project design made where practicable. Full details of the formal pre-application consultation can be found in the Pre-application Consultation Report.

During the formal pre-application consultation period, a second public exhibition took place, on 17<sup>th</sup> December 2019, which presented the Project and documents to be submitted for planning. Key members of the project team were on hand to explain details of the Project and answer any questions. In total XX people attended the event. Attendees were asked to fill out feedback forms allowing for their views on the Project to be recorded and actioned where practicable. Full details of the public exhibition, feedback received and how this has influenced the design of the Project can be found in the Public Consultation Report.

## 8.0 Plans and Supporting Documents

Plans and documents submitted in support of this application are as follows (other documents are available upon request):

Document Title:	Document Number:
Environmental Constraints and Opportunities Record (ECOR)	122918-BVL-Z0-00-RP-I-00005
Environmental Action Plan (EAP)	122918-BVL-Z0-00-RP-I-00006
Pre-application Consultation Report	TBC
Public Consultation Report	TBC
Invasive Species Management Plan	122918-BVL-Z0-00-RP-I-00007
WFD Compliance Assessment	122918-BVL-Z0-00-RP-I-00013
Appropriate Assessment	122918-BVL-Z0-00-RP-I-00009
Arboricultural Impact Assessment (Tree Solutions, 2019)	
Preliminary Ecological Appraisal (Enfys Ecology, 2018)	
Aerial, Phase 1 and NVC Survey (Exegesis SDM, 2018)	
Phase 1 Habitat Survey Report for additional site areas and validation	122918-BVL-Z0-00-RP-I-00012
Bat Roost Potential Survey Report	122782-BVL-Z0-00-RP-I-00010
Bat Survey Report (Egniol Environment Ltd, 2019) CONFIDENTIAL	
Preliminary Landscape and Visual Appraisal	122782-BVL-Z0-00-RP-I-00014
Viewpoint Photography and Illustrations	122782-BVL-Z0-00-RP-L-00004
Access Audit	122918-BVL-Z0-00-RP-L-00003
Tree Management Plan	122918-BVL-Z0-00-RP-I-00015
Drawings Title:	Drawing Number:
Location Plan	122918-BVL-Z0-00-DR-I-10001
Site (Block) Plan 1	122918-BVL-Z0-00-DR-I-10002
Site (Block) Plan 2	122918-BVL-Z0-00-DR-I-10003
Site (Block) Plan 3	122918-BVL-Z0-00-DR-I-10004
Site (Block) Plan 4	122918-BVL-Z0-00-DR-I-10005
Site (Block) Plan 5	122918-BVL-Z0-00-DR-I-10006
Site (Block) Plan 6	122918-BVL-Z0-00-DR-I-10007
Site (Block) Plan 7	122918-BVL-Z0-00-DR-I-10008
Site (Block) Plan 8	122918-BVL-Z0-00-DR-I-10009
Llyn Tegid Design & Planning: Ditches (sheet 1 of 3)	122918-BVL-Z0-00-DR-C-10008
Llyn Tegid Design & Planning: Ditches (sheet 2 of 3)	122918-BVL-Z0-00-DR-C-10009
Llyn Tegid Design & Planning: Ditches (sheet 3 of 3)	122918-BVL-Z0-00-DR-C-10010
Llyn Tegid Design & Planning: Bandstand – Plan & Sections	122918-BVL-Z0-00-DR-C-10011
Llyn Tegid Design & Planning: Sections 1.1, 2.1 & 3.1 (sheet 1 of 3)	122918-BVL-Z0-00-DR-C-10012
Llyn Tegid Design & Planning: Sections 4, 4.1 and 4.2 (sheet 2 of 3)	122918-BVL-Z0-00-DR-C-10013
Llyn Tegid Design & Planning: Sections 5.1 & 6.1 (sheet 3 of 3)	122918-BVL-Z0-00-DR-C-10014

Llyn Tegid Design & Planning: Enkamat Fixing Details	122918-BVL-Z0-00-DR-C-10015
Llyn Tegid Design & Planning: Headwall Details	122918-BVL-Z0-00-DR-C-10016
Environmental Constraints and Opportunities Plan (1 of 4)	122918-BVL-Z0-00-DR-I-00011
Environmental Constraints and Opportunities Plan (2 of 4)	122918-BVL-Z0-00-DR-I-00012
Environmental Constraints and Opportunities Plan (3 of 4)	122918-BVL-Z0-00-DR-I-00013
Environmental Constraints and Opportunities Plan (4 of 4)	122918-BVL-Z0-00-DR-I-00014
Llyn Tegid – Environmental Mitigation and Enhancements	122918-BVL-Z0-00-SK-L-00001
Landscape Masterplan	TBC
Bandstand Seating Area Enhancements	122918-BVL-Z0-00-DR-L-00010
Seating Area nr Rugby Club Enhancements	122918-BVL-Z0-00-DR-L-00011
Pumping Station Seating Area Enhancements	122918-BVL-Z0-00-DR-L-00012
Y Bala Rhif 1 Seating Area Enhancements	122918-BVL-Z0-00-DR-L-00013
Leisure Centre Enhancement Proposals	122918-BVL-Z0-00-DR-L-00003
Foreshore Car Park Enhancements	122918-BVL-Z0-00-DR-L-00015
Hedgerow Planting – Typical Arrangement	122918-BVL-Z0-00-DR-L-00001

## Appendix A – Access Audit

## Appendix B – Viewpoint Photography and Illustrations

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