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Agency Wales



**Planning Application  
for works associated with delivery of the  
Fairbourne Flood Risk Management Scheme**

**Design and Access Statement**

October 2012



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# Planning Application for Works Associated with Delivery of the Fairbourne Flood Risk Management Scheme Design and Access Statement

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## **PLANNING APPLICATION FOR WORKS ASSOCIATED WITH DELIVERY OF THE FAIRBOURNE FLOOD RISK MANAGEMENT SCHEME**

### **DESIGN AND ACCESS STATEMENT**

#### **1 INTRODUCTION**

##### **Purpose**

- 1.1 This Design and Access Statement has been prepared by Black and Veatch Ltd., on behalf of the Environment Agency Wales, in support of its planning application for works associated with delivery of the Fairbourne Flood Risk Management Scheme (FRMS).
- 1.2 The purpose of the Fairbourne FRMS is to improve the existing river and tidal flood defences to provide protection to properties within and around Fairbourne. This will protect 430 properties from tidal flooding; 90 of which will also be protected from flooding from the Afon Henddol; and it will protect Arthog Bog from tidal inundation, during a 1 in 200 year (0.5%) annual chance flood event.
- 1.3 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 TAN12, The Town and Country Planning (General Development Procedure) (Amendment) (Wales) Order 2009 and the CABE publication 'Design and Access Statements; how to write, read and use them', have been drawn upon in the preparation of this statement.

##### **The Applicant**

- 1.4 The Environment Agency Wales was established by the Environment Act 1995 and is a non-departmental public body, with statutory responsibility for flood management and defence in Wales. It plays a central role in delivering the environmental priorities of Government through its functions and roles as environmental regulator, an environmental operator, a monitor of the state of the environment, an advisor on the development of environmental policy and a promoter of scientific research in support of these roles. It exercises a general supervision over all matters relating to flood defence. Under the Water Resources Act 1991, it has permissive powers for the management of flood risk arising from designated Main Rivers and the sea.

##### **The Decision Making Framework**

- 1.5 The proposed Fairbourne FRMS is located within the administrative areas of Gwynedd Council (GC) and Snowdonia National Park Authority (SNPA). The proposed works within Snowdonia National Park are permitted development under Schedule 2, Part 15, Class A (f) of the Town and Country Planning (General Permitted Development) Order 1995 (as amended) (GPDO). The development proposed within Gwynedd is a combination of permitted development and works that are the subject of this planning application. Gwynedd Council is therefore the

relevant local planning authority responsible for determining this planning application.

### **Environmental Impact Assessment**

- 1.6 Screening Opinions issued by GC and SNPA during September 2012 and February 2011 respectively confirm that the proposed scheme does not require an Environmental Impact Assessment under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011 (as amended) (EIA Regulations).

### **Habitat Regulations Assessment**

- 1.7 The Environment Agency Wales has undertaken a Test of Likely Significant Effects to assess the implications of the works on the features of the Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau Special Area of Conservation (SAC) under the Conservation of Habitats and Species Regulations 2010 (as amended). This assessment concluded there to be the potential for likely significant effects on the SAC. An Appropriate Assessment will therefore be undertaken prior to the determination of this planning application. It is proposed that impacts on the SAC will be mitigated through the creation of new intertidal habitat within the SAC, appropriate consents for which will be obtained separately from the Fairbourne FRMS. The Countryside Council for Wales (CCW) confirmed their agreement to this approach in September 2012.

### **Land Ownership**

- 1.8 The Environment Agency Wales has secured an Option to Purchase Agreement with the owners of the land where it is proposed to create wetland habitat. All affected landowners are identified in Certificate B.

### **Format of the Statement**

- 1.9 This statement describes the proposals that are the subject of this planning application. It describes the relevant policy background and provides an appraisal of the proposals with planning policy. It should be read in conjunction with the following documents that accompany the planning application:

- Flood Consequence Assessment (FCA).
- Environmental Report.

## **2 NEED FOR THE SCHEME**

### **Introduction**

- 2.1 The purpose of the Fairbourne FRMS is to improve the existing river and tidal flood defences within and around Fairbourne. The FRMS will protect 430 residential and commercial properties, and Arthog Bog. The scheme also includes proposals to enhance and create new habitats.

### **Protecting People**

- 2.2 Fairbourne is at risk of flooding from both the Mawddach Estuary and the Afon Henddol. The primary aim of the FRMS is to reduce both river and tidal flood risk to people and property in Fairbourne.
- 2.3 Environment Agency Wales and other Member Organisations, including CCW, Cadw and Gwynedd Council, are reviewing the policy for tidal flood defences along the estuary within the West of Wales Shoreline Management Plan (SMP) 2. Policy 3 of draft SMP2 is to “*Continue with existing or alternative actions to manage flood risk at the current level*”. The draft SMP2 promotes holding the line of the defence in Epoch 1 (over the next 20 years), then managed retreat in Epoch 2 (20-50 years) and no active intervention during Epoch 3 (50-100 years).
- 2.4 Policy 3 of the North West Wales Catchment Flood Risk Management Plan (CFMP) (2010) advises there are areas of low to moderate flood risk where the Environment Agency Wales is generally managing existing flood risk effectively, with actions appropriate and proportionate to the risks.
- 2.5 The existing tidal embankments range in height. The main Fairbourne embankment is higher than the 1 in 1000 (0.1%) annual chance flood level, whilst other sections, including Arthog, are overtopped during modelled scenarios between a 1 in 5 (20%) annual chance flood and a 1 in 25 (4%) annual chance flood event. The village experienced flooding in 1927, 1938 and 1963 when the existing tidal embankments were overtopped.
- 2.6 Inspections of the existing tidal flood defences (Fairbourne, Fegla Fawr, Mawddach and Arthog) have identified sections of defence that have deteriorated, are in poor condition, and at risk of breaching. Failure of the tidal embankments would lead to tidal flooding of 430 residential (largely single storey) and commercial properties during a 1 in 200 (0.5%) annual chance flood event. Given the low lying nature of the land, the largely elderly and retired residential population, the significant number of single storey properties, with only one principal road out of the village, a breach of the tidal defences could result in significant flooding of a vulnerable population, properties and access routes. In addition, the village is a tourist resort and holiday makers would be unaware of the flood risk and evacuation measures in the event of a flood event.
- 2.7 90 residential and commercial properties (predominantly residential) are at risk of flooding during a 1 in 200 (0.5%) annual chance flood event from the Afon Henddol. There are no existing fluvial flood defences and it is difficult to maintain the existing channel due to encroachment of properties up to the channel edge. The most recent flooding, in 2000, affected 20 properties.

### **Protecting Habitat**

- 2.8 The Fairbourne FRMS will also protect the Arthog Bog from tidal inundation. This freshwater habitat forms a composite part of the Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau SAC and the Aber Mawddach/Mawddach Estuary Site of Special Scientific Interest (SSSI). It would be significantly damaged by saline intrusion resulting from a tidal breach.

- 2.9 The Environment Agency Wales has national targets for the improvement of SSSI sites. Water Level Management Plans (WLMPs) for wetland SSIs aim to achieve favourable hydrological conditions that will contribute to the sites achieving favourable conservation status. The Fairbourne FRMS will prevent further degradation of the sensitive Arthog Bog habitat, by inhibiting regular tidal inundation and minimising the risk of a breach. This will contribute to the objective of the Arthog Bog WLMP to achieve favourable status.
- 2.10 Informal parking and fly tipping on the western corner of the Fairbourne embankment has caused degradation of the adjacent intertidal habitat. A formal parking area is proposed which will prevent further damage to the habitat.

### Enhancing Habitat

- 2.11 The Fairbourne FRMS incorporates measures to enhance existing habitats and create new habitat. It is proposed to set back two sections of the existing Fairbourne embankment from its current alignment. This will create 1.4 hectares (ha) of new intertidal habitat on the seaward side of the new embankment. This will contribute to delivery of the Environment Agency Wales' Regional Habitat Creation Programme, which aims to create 40ha of new intertidal habitat within the Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau SAC within Epoch 1 (over the next 20 years) in order to compensate for wider habitat losses in the SAC predicted to result from sea level rise and coastal squeeze.
- 2.12 Approximately 2ha of new wetland habitat will be created by lowering and re-profiling ground levels to create wet grassland and wader scrape habitats on land to the east of Fairbourne Holiday Village.
- 2.13 It is also proposed to replace the Afon Henddol tidal outfall, which acts a barrier to fish migration, with a design incorporating a side-hung tidal door. This will remove the current barrier to fish migration and contribute to the delivery of the Western Wales River Basin Management Plan.

## 3 THE PROPOSAL

### The Fairbourne FRMS

- 3.1 The Fairbourne FRMS comprises works that are the subject of this planning application and works that can be delivered using permitted development rights.
- 3.2 The works that are the subject of this **Planning Application** comprise:

#### *River flood defences:*

- Construction of new flood relief channels upstream and downstream of Beach Road and associated embankment works.
- Construction of a culvert beneath Beach Road.
- Construction of a 0.5m high flood embankment on the north eastern boundary of Fairbourne Holiday Village.

#### *Tidal flood defences:*



- Realignment of two sections of the Fairbourne flood embankment, including the permanent diversion of two sections of Public Right of Way 13.
- Replacement of the Henddol outfall and realignment of approximately 65m of the Afon Henddol to connect with the new outfall.

*Habitat protection and creation:*

- Construction of a vehicle lay-by to the west of the Fairbourne embankment.
- Creation of 1.4 ha of intertidal habitat.
- Creation of approximately 2 ha new wetland habitat.

- 3.3 The permanent works that are **permitted development** under GPDO comprise:
- Improvements to the existing Fairbourne, Fegla Fawr, Mawddach and Arthog embankments, permitted under Schedule 2, Part 15, Class A (f).
  - Works to the Morfa outfall, permitted under Schedule 2, Part 15, Class A (b).
  - New headwalls and flow control structures within existing channels - Schedule 2, Part 15, Class A (b).
  - Improvement works to existing embankments along the Afon Henddol downstream of the telephone exchange - Schedule 2, Part 15, Class A (b).
- 3.4 The following temporary works are **permitted development** under Schedule 2, Part 4, Class A of the GPDO:
- Construction site compound and associated materials storage at the site of the former brick works.
  - Haul road between the site compound and the Fairbourne embankment.
  - Site compound and associated materials storage adjacent to the Arthog embankment.

### Environmental Action Plan

- 3.5 The Environmental Report that accompanies this planning application includes an Environmental Action Plan (EAP). This summarises the measures that will be implemented to manage the environmental effects of construction. A project Environmental Clerk of Works (ECW) will monitor compliance with the EAP.

### Proposed Construction Timetable

- 3.6 Subject to securing the relevant approvals, it is anticipated that the following programme of activities will be followed:
- Vegetation clearance and site compound set up from February 2013.
  - Secure working areas and site preparation in April 2013.
  - Construction starts in April 2013 and continues through to October 2013.
  - Demobilising of site compound, restoration and reinstatement of the working areas from October 2013. Seeding of affected areas to commence from April 2014.
- 3.7 The proposed normal construction working hours will be 8am - 6pm, Monday to Friday. Out-of-hours works would be agreed in advance with the Local Authority.

## 4 SITE DESCRIPTION

- 4.1 The proposed FRMS is located within Fairbourne village on the west Wales coastline (NGR SH615135); refer to drawing 12196-15002.
- 4.2 The Mawddach Estuary SAC and SSSI is north of Fairbourne; Snowdonia National Park and high ground to the east; Cardigan Bay to the west, and high ground to the south. Arthog is to the north east and Friog to the south east.

- 4.3 The current land uses within the scheme area include rough pasture, the Ynys Faig Caravan Park, the Fairbourne Golf Course and existing flood defences. Public Right of Way (PRoW) 13 follows a route along the crest of the Fairbourne embankment and there are permissive paths to the north and east of the proposed wetland and compound site. The Mawddach Trail, a Sustrans national cycle route and multi-user trail, crosses the flood embankment at Arthog. Currently it splits at Morfa Mawddach station, where the cycle route crosses the estuary into Barmouth and PRoW 13 continues along the Fairbourne embankment.
- 4.4 Within Fairbourne village a high proportion of permanent residents are retired and elderly, many live in bungalows. The village attracts tourists; there are many holiday lets, second homes, and the Fairbourne Holiday Village. As a result, the population increases from 500 in winter to approximately 3000 during the summer.
- 4.5 The primary vehicular access to the village is via Beach Road, which crosses the railway line from the A493. Fairbourne train station is on the south western boundary of the village, and Morfa Mawddach station to the south of Fegla Fawr. The mainline railway between Pwllheli and Aberystwyth passes through the village and crosses the estuary at Barmouth Bridge.
- 4.6 The Afon Henddol and Afon Morfa drain in a north westerly direction to the Mawddach Estuary and discharge through existing tidal flaps. The Afon Henddol follows two routes through Fairbourne village and has been straightened and culverted in part to accommodate surrounding land uses. There is limited or no floodplain associated with this watercourse through Fairbourne due to the encroachment of properties and gardens. It is largely overgrown with vegetation, and difficult for the Environment Agency Wales to access and maintain.

## 5 DESIGN COMPONENTS

### Introduction to the Design Component

- 5.1 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 FRMS and the surroundings. This includes descriptions of the amount and density of development proposed, the layout, the scale of development and the appearance of the proposed development.

### Proposed Use

- 5.2 The planning application includes the construction and operation of river and tidal flood defences, and habitat creation proposals.

### ***River flood defences:***

- 5.3 The proposed flood relief channels are designed to divert flood waters from the Afon Henddol away from Fairbourne village in times of high flows. Existing flows within the Afon Henddol will be maintained and only flood waters will be diverted along the new channels.
- 5.4 Upstream of Beach Road, a new flood relief channel, approximately 125m long will be constructed, which will connect to the existing Afon Henddol channel. The

new channel will cross beneath Beach Road via the proposed new culvert, and will continue for approximately 275m in a north easterly direction parallel to the railway until it connects to an existing twin arch culvert beneath the railway line. The new flood relief channel will then extend through the area of proposed wetland habitat in a north westerly direction for approximately 250m until it connects with an existing channel north of the village. Earth embankments on both sides of the new channel will contain flood waters until the channel enters into the wetland habitat, where flows will be allowed to spread in to the surrounding landscape.

- 5.5 A 0.5m high flood embankment is required around the north eastern boundary of the Fairbourne Holiday Village to protect this area from flooding. This embankment has been incorporated in to the wetland creation works design. There is the requirement for a raised Environment Agency Wales maintenance access track through the site on the western bank of the new flood relief channel. The new flood embankment will be integrated with this access track to eliminate the need for two raised areas within the site and to soften the appearance of the embankment in the landscape. Refer to drawing 121946-11006.

***Tidal Flood Defences:***

- 5.6 To prevent the construction works from exacerbating flood risk to the village, the new embankment sections will be reinforced and constructed before the existing sections are removed. Ground levels on the seaward side of the new embankments will be lowered to 1.6m AOD and 1.8m AOD to allow appropriate conditions for the natural establishment of intertidal habitat.
- 5.7 It is proposed to replace the existing Afon Henddol tidal outfall with a design incorporating a side-hung tidal door. This design will be easier to access and maintain by the Environment Agency Wales and it will enable fish to migrate upstream, which will contribute to the delivery of the Western Wales River Basin Management Plan. The existing outfall will be sealed and protruding components removed. Locally won materials, including large stones from within the channel, will be placed to conceal the remains of the existing outfall. The new outfall will be constructed through a section of the realigned Fairbourne embankment. This avoids permanent development within the adjacent designated site (refer to section 6.9). Approximately 65m of the existing Afon Henddol channel will be realigned to connect with the new outfall.

***Habitat Protection and Enhancement:***

- 5.8 The proposals to create approximately 2 ha of wetland habitat to the east of Fairbourne will be achieved by lowering of ground levels by an average of 1.1m across the site. Ground levels will be profiled to create a degree of natural variation within the new habitat. Localised areas will be excavated by a further 1m maximum and with shallow side gradients to create wader scrape habitats. Stripped topsoil will be carefully stored and reused in the site to allow for the natural establishment of wet grassland habitat.
- 5.9 To prevent the further encroachment and damage of intertidal habitat which has resulted from informal parking, it is proposed to create a parking lay-by for up to 5 vehicles, on the western end of the Fairbourne embankment. Ground levels will be locally profiled to a consistent level of 4.7m AOD and timber bollards will be used to prevent vehicle encroachment.

## The Design Process

- 5.10 The design rationale for the FRMS has been informed and constrained by:
- The need to improve river and tidal flood defences around Fairbourne.
  - The layout of existing flood defences.
  - The frequency and scale of potential flood events.
  - The functional requirements and the importance of providing robust, tried and tested solutions that can be easily maintained.
  - Health and safety - the need to ensure public safety; to provide a safe and secure working environment.
  - The existing topographic, ground conditions and the surrounding landscape and above ground features.
  - Information learned through stakeholder engagement and public exhibitions.
  - The potential environmental effects of the construction and operation of the FRMS.
  - Making effective use of physical resources, including use of the established infrastructure and energy.

## Amount and Density of Development

- 5.11 The new flood relief channel will span a length of approximately 650m. It will be on average 3m wide, up to 1m deep relative to existing ground levels and incorporate a two-stage design. The channel will typically require embankments either side of up to 1m in height, with a 2m wide crest and side slopes at a gradient of 1:2.
- 5.12 The flood embankment on the north eastern boundary of the Fairbourne Holiday Village will be 0.5m in height and approximately 150m long. It will be integrated into the Environment Agency Wales' maintenance access track through the wetland creation site (refer to section 5.5).
- 5.13 The Fairbourne embankment is to be realigned in two locations. The first location, adjacent to the existing Afon Henddol tidal outfall is approximately 180m in length, and the second realignment section is approximately 220m. Both embankment sections include the embankment crest at 4m wide, and side slopes at a gradient of 1:3. PRoW 13 will be realigned along the crest of these new embankment sections and will be finished with materials suitable for pedestrians and cyclists. The ground levels on the seaward side of the new embankment sections will be profiled to enable the establishment of new intertidal habitat.
- 5.14 The culvert beneath Beach Road will be approximately 12m long. Safe provision will be in place either side of the road for Environment Agency Wales maintenance and inspection access.
- 5.15 The proposed wetland habitat will cover an area of approximately 2ha and will be created by lowering ground levels across the site by an average of 1.1m.
- 5.16 The formal parking lay-by to the west of the Fairbourne embankment will be approximately 97.5m<sup>2</sup> and it will accommodate up to 5 cars.

## Layout

- 5.17 The proposed layout of the river and tidal flood defences is a product of the function they need to perform in protecting Fairbourne. The layout is also a product of the aim to create a visually attractive landscape; to enhance biodiversity through the improvement and creation of habitats; and the need to carry out regular routine maintenance in a safe and efficient manner.

## Scale

- 5.18 Drawing 121946-15003 illustrates the relationship between the proposed and permitted components of the FRMS and the surrounding landscape context.
- 5.19 Descriptions of the individual scheme components, including dimensions, are provided in sections 5.11 to 5.16. The overall scale of development is principally a function of the scale of potential flood events.

## Landscaping

- 5.20 All working areas will be reinstated to their existing condition or to an improved ecological and landscape value. The new areas of intertidal habitat will be profiled to the required ground levels to allow its natural establishment. Tidal embankment seed mixes will be agreed with CCW and will include stabilisation mixes with native species and minimal topsoil. All other grass seed mixes used will be agreed with landowners. The Fairbourne Golf Course will be reinstated to ensure the tees are not shortened from their original locations. The temporary haul road from the wetland habitat creation site to the Fairbourne embankment will be removed, original topsoil replaced and the land seeded to reinstate rough pasture. Marginal vegetation will be allowed to naturally establish along the banks of the new flood relief channel and the embankments either side of the channel will be seeded with an appropriate seed mix. Replacement tree planting within the Ynys Faig Caravan Park will be undertaken in agreement with the landowners. The wetland creation works will involve the replacement of topsoil from the site to allow the natural establishment of wet grassland. A number of wader scrapes no greater than 1m in depth and with shallow side slopes will be locally profiled within the wet grassland habitat, and will be left to naturally establish. Wildflower seeding will take place around the periphery of the wetland site.
- 5.21 With the exception of the new flood defence assets, the reinstatement works will be subject to a five year maintenance period, which will ensure the establishment of new planting and manage invasive weeds and non-native plant species. Flood defence assets will be maintained by the Environment Agency Operations teams following a one year defects period on the planting.

## Appearance

- 5.22 The Fairbourne FRMS is designed to appear to naturally integrate with the surrounding landscape. The new flood relief channel and habitat creation areas are designed to appear natural in the landscape. The flood relief channel where possible does not follow a straight, engineered course and the detailed design will ensure it is profiled as a two-stage channel to maintain flows for as long as possible following a flood event and to allow the natural establishment of marginal vegetation. Embankments either side of the flood relief channel will be seeded with a local provenance seed mix. Habitat creation areas will be excavated to the required depths and topsoil replaced where required to allow the habitat to naturally establish. The new embankment on the north eastern boundary of the Fairbourne Holiday Village is incorporated within the maintenance access track required through the wetland habitat creation works.



- 5.23 The realigned tidal embankments will be built to the same improved profile as the remainder of the Fairbourne embankment and will remove existing corners from the current alignment. The new Afon Henddol tidal outfall within a realigned section of embankment will not appear significantly different to the existing outfall; the existing outfall will be sealed and disguised (refer to section 5.7). These sections of works will therefore fit with the landscape and will allow for increased areas of intertidal habitat on the seaward side of the realigned embankment sections.
- 5.24 The formal lay-by on the western end of the Fairbourne embankment will be discrete in appearance, incorporating timber bollards and a ground surface to match the existing adjacent roadway.
- 5.25 All areas affected by the scheme works will be reinstated to their existing condition, or to an improved ecological value, on completion of the works.

## 6 ACCESS COMPONENT

### Introduction

- 6.1 The purpose of the access component of this Design and Access Statement is to explain the 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 scheme.

### Access to and Within the Site

#### **Construction Access**

- 6.2 During construction of the new culvert it is anticipated that one lane of Beach Road will need to be closed and traffic flows managed using traffic lights for approximately 1 month.
- 6.3 It is estimated that the transport of construction materials will generate on average 20 movements per day of 20 tonne sized lorries. However, by reusing excavated material from the wetland creation works to construct the embankments and transporting that material via the temporary haul road, the proportion of vehicle movements that would otherwise use the local road network will be reduced by at least half. This will be of particular benefit to the local road network during the holiday periods when Beach Road and Penrhyn Drive North are frequently used by tourists and day visitors (refer to section 4.4).
- 6.4 Access to adjacent private properties, the Ynys Faig Caravan Park and the Fairbourne Golf Club will be maintained throughout construction. There will be a temporary working area footprint of approximately 0.75 ha and 0.36 ha within the Ynys Faig Caravan Park and the Fairbourne Golf Club respectively through construction.

#### **Pedestrian Access and Routes**

- 6.5 The scheme requires the permanent diversion of two sections of PRow 13, which currently follows a route along the crest of the existing Fairbourne embankment. PRow 13 will be closed for approximately 6 months to allow the Fairbourne



embankment works to take place. There is no diversion route available using existing PRowWs.

- 6.6 The Bwlchgwyn pony trekking group frequently cross the western end of PRow 13 on the Fairbourne embankment in order to access the salt marsh. Provision for their crossing will be maintained during construction, and following construction through the provision of replacement access ramps.
- 6.7 PRow 13 will be re-opened on the new alignment as soon as possible on completion of the proposed works. It will be reinstated with materials suitable for pedestrian and cyclist use. This will enable the extension of the cycleway into Fairbourne, which is an aspiration of the Fairbourne Rights of Access Group.
- 6.8 Two permissive footpaths follow routes north and south of the proposed wetland site. These will remain open during the construction, although access may be restricted at times.
- 6.9 Other pedestrian routes affected by the proposed permitted development works are addressed within the Environmental Report, which accompanies this planning application.

#### **Operational Access**

- 6.10 The Fairbourne FRMS is designed to be low maintenance, with operational access much improved from the existing situation. Planned inspections of the flood defences will be required annually, and in some areas more regularly.
- 6.11 The primary access to the completed river flood defence works for Environment Agency Wales operatives will be via secure field gates from Beach Road. Access to the tidal flood defence works will primarily be from Penrhyn Drive North.
- 6.12 A maintenance access track will be located along the western bank of the flood relief channel as it passes through the new wetland site. Access to this track will be from Beach Road, via Marina Avenue. In order to prevent operational vehicles from reversing out of this narrow access road, a turning area has been designed within the wetland site as part of the maintenance access track.
- 6.13 As the works associated with the Fairbourne FRMS are largely on private land and will only be accessed by Environment Agency Wales operatives, there is not a requirement for the defences to be built in accordance with the Disability Discrimination Act 1995 (DDA). However, PRow 13 and the formal parking area will be accessible to the public, and these will be finished with materials suitable for wheeled access.
- 6.14 Access to private land will be reinstated as existing on completion of the works. There will be a permanent footprint of approximately 0.38 ha within the Ynys Faig Caravan Park, 0.08 ha within the Fairbourne Golf Club and 1.5 ha of rough pasture agricultural land as a result of the proposed scheme.

#### **Parking**

- 6.15 Informal parking on the spit to the west of the Fairbourne embankment has damaged part of the adjacent intertidal habitat. CCW has requested that this issue be addressed. Therefore the FRMS includes proposals to create a formal lay-by,

for up to 5 vehicles, adjacent to the road. The lay-by will be surfaced to match the existing roadway and delineated with timber parking bollards, which will help to prevent unauthorised vehicles from accessing the saltmarsh.

## 7 RELEVANT POLICIES

7.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 and paragraph 2.1.2 of Planning Policy Wales emphasise that planning decisions should be in accordance with the Development Plan, unless material considerations indicate otherwise.

7.2 National planning policy comprises of Planning Policy Wales (PPW) and Technical Advice Notes (TANs). The following are relevant to determination of the planning application:

- Planning Policy Wales (2011)
- Minerals TAN 1: Aggregates (2004)
- TAN 5: Nature Conservation and Planning (2009)
- TAN 6: Planning for Sustainable Rural Communities (2010)
- TAN 11: Noise (1997)
- TAN 12: Design (2009)
- TAN 14: Coastal Planning (1998)
- TAN 15: Development and Flood Risk (2004)
- TAN 16: Sport, Recreation and Open Space (1998)
- TAN 18: Transport (2007)

7.3 The Unitary Development Plan (UDP) for Gwynedd was formally adopted on 16 July 2009. In October 2012, Gwynedd Council resolved not to undertake further work on the UDP. Gwynedd Council and the Isle of Anglesey County Council set up a Joint Planning Policy Unit to prepare a Joint Local Development Plan (JLDP). The current programme for preparation of the Anglesey & Gwynedd JLDP aims for the strategy to be adopted in 2016.

7.4 The following policies, strategies and initiatives are also relevant:

- Water Framework Directive (WFD): Western Wales River Basin Management Plan
- 'Making Space for Water' (Environment Agency)
- Draft West of Wales Shoreline Management Plan (SMP) 2
- North West Wales Catchment Flood Management Plan (CFMP)

### Gwynedd UDP (2001-2006)

7.5 The following UDP policies are relevant to the determination of the planning application:

Strategic Policy 2:	The Natural Environment.
Strategic Policy 3:	Built and Historic Environment.
Strategic Policy 4:	Design Standards.
Strategic Policy 5:	Development that Creates Risk.
Strategic Policy 6:	Land Redevelopment and Reuse.

Policy A1:	Environmental or other Impact Assessments.
Policy B7:	Sites of Archaeological Importance.
Policy B12:	Protecting Historic Landscapes, Parks and Gardens.
Policy B14:	Protecting the Landscape Character of the Snowdonia National Park.
Policy B15:	Protection of International Nature Conservation Sites.
Policy B16:	Protecting Nationally Important Sites.
Policy B20:	Species and their Habitats that are Internationally and Nationally Important.
Policy B23:	Amenities.
Policy B27:	Landscaping Schemes.
Policy B29:	Development on Land at Risk from Flooding.
Policy B32:	Increasing Surface Water.
Policy B33:	Development that Creates Pollution or Nuisance.
Policy B35:	Avoiding the Spread of Invasive Species.
Policy C7:	Building in a Sustainable Manner.
Policy C19:	Borrow Pits.
Policy C28:	Safeguarding Agricultural Land.
Policy CH22:	Cycling Network, Paths and Rights of Way.
Policy CH31:	Providing for Cyclists.
Policy CH33:	Safety on Roads and Streets.
Policy CH35:	Public Parking Facilities.

7.6 The policy and guidance contained in Natur Gwynedd Local Biodiversity Action Plan (LBAP) and Gwynedd Supplementary Planning Guidance: Landscape Character (2009) have also been considered.

7.7 Analysis of the proposed scheme against these policies is provided in section 10.

### Relevant Planning History

7.8 Gwynedd Council granted planning permission for the temporary storage of materials on land adjacent to Marina Avenue in March 2012 (reference C11/1175/01/LL). This would enable rock and aggregate material generated from construction of the Gelligemlyn road scheme (a Welsh Assembly Government scheme to improve a 2km section of the A470 near Ganllwyd) to be stored until it can be reused in the construction of the Fairbourne FRMS.

7.9 On 1<sup>st</sup> October 2012, Gwynedd Council issued its EIA Screening Opinion on the proposed Fairbourne FRMS, which confirmed that EIA is not required.

### Consultation

7.10 The Environment Agency Wales has engaged with local residents and other key stakeholders during the design evolution of the Fairbourne FRMS and will continue to do so during the construction phase.

7.11 The following groups were consulted during the options appraisal phase:

- **Statutory consultees** – Snowdonia National Park Authority, Gwynedd Council, CCW, Cadw, Welsh Assembly Government, Network Rail.

- **National bodies** – Amateur Rowing Association, Association of Drainage Bodies, BASC Wales Centre, Country Landowners Association, Country Land and Business Association, Campaign for the Protection of Rural Wales, Farming and Wildlife Action Group, Inland Waterways Association, Welsh Farmers Union, National Federation of Anglers, National Trust, North Wales Wildfowling Joint Council, Otter Project Wales, Ramblers Association in Wales, Royal Society for the Protection of Birds, SUSTRANS, and Woodland Trust.
- **Local Groups** – North Wales Wildlife Trust, Gwynedd Archaeological Trust, Gwynedd Bat Group, Gwynedd Resilience Forum, Fairbourne Access Group (FRAG), Fairbourne Golf Course, Local MPs, Fairbourne Community Council.
- **Environment Agency Wales Internal Teams** – Water Resources, Biodiversity, Archaeology, Landscape, Operations Delivery, Flood Incident and Warning, Fisheries, Environmental Management, Development and Flood Risk, Asset Systems Management, and Planning Liaison.

7.12 Public engagement activities included:

- A **public exhibition** held in December 2009, where the general public were invited to view and comment on the proposed options.
- Regulated updated scheme information on the **Environment Agency website** during December 2009. This linked in with the public exhibitions.
- A **newsletter**, hand delivered to approximately 500 properties and businesses in June 2010. This provided an update on the scheme since the December 2009 public exhibition, and advised of the next public consultation event.
- A **second public workshop** in July 2010.
- A **Scoping Consultation Document** was published in November 2010. This documented earlier responses from public consultation events and was issued to internal and external consultees, including local groups such as the Community Council and FRAG.
- The Environment Agency Wales provided an input into a **public workshop** on the West of Wales Shoreline Management Plan in June 2011.
- The Community Council, Fairbourne Right of Way Group and residents of Glan Y Mor and Marina Avenue were consulted during November 2011 regarding the possible use of the former brick works site as a temporary storage area for excavated materials from a local road scheme to be reused in construction of the FRMS. The subsequent planning application was the subject of formal public consultation prior to its approval in March 2012.

7.13 During 2011/2012 a review of scheme options was undertaken and further consultation was carried out with potentially affected landowners and tenants, CCW, Gwynedd Council, SNPA, Network Rail and internal Environment Agency Wales specialists.

7.14 During July and August 2012 the local community was consulted on the proposals to create wetland habitat on land adjacent to the former brick works. This included publication of an updated newsletter; a display in the Community Hall; and a public meeting in the Community Hall. The proposals were well received

and a second static display was in place within the Community Hall during late August to advise the public of the proposals that would be included within this planning application.

- 7.15 The Environment Agency Wales will continue dialogue with local residents during construction of the Fairbourne FRMS, to keep them informed and to discuss any issues arising. This will be facilitated through newsletters, regular contact with residents, and Community Council meetings.

## 8 ASSESSMENT OF THE MATERIAL PLANNING CONSIDERATIONS

### Introduction

8.1 This section of the Design and Access Statement considers the principle of the development and addresses the relevant planning and environmental issues, which include.

- Acceptability of the principle of development
- Flood risk
- Biodiversity
- Visual amenities
- Historic environment
- General and residential amenities – noise, air quality, traffic, public rights of ways, tourism
- Sustainability matters

### Acceptability of the Principle of the Development

*(UDP Policies 2, 5, 6, B27, B29, C19 and C28; TAN 5, 6, 14 and 15)*

- 8.2 The proposed FRMS is necessary to improve tidal and fluvial flood protection within Fairbourne and the surrounding area. Delivery of the scheme supports the aims of UDP Policies 5, B29 and TAN 6, TAN 14 and TAN 15.
- 8.3 The scheme will create up to 3.4 ha of new intertidal and wetland habitat, which by enhancing the natural environment and by providing demonstrable environmental benefits, accords with the aims of UDP Strategic Policy 2, Policies B27 and C19, TAN 5 and the Natur Gwynedd LBAP.
- 8.4 The Fairbourne FRMS works that are the subject of this planning application will result in the loss of approximately 1.5 ha rough pasture agricultural land. However, in accordance with UDP Policy C28, the development avoids grade 1, 2 and 3a agricultural land. The permanent footprint on agricultural land has been minimised as far as is reasonably practicable; there is no alternative.
- 8.5 In accordance with UDP Strategic Policy 6, the Fairbourne FRMS will deliver necessary tidal and fluvial flood protection. The proposals minimise the loss of agricultural land and maximise opportunities to create and enhance habitat. Delivery of the scheme makes prudent use of natural resources; wherever reasonably practicable reusing materials and minimising traffic generation. The principle of the development is therefore considered to be acceptable.

### Flood Risk

*(UDP Policies: 5, B29, B32; Tan 15)*

- 8.6 The FRMS will significantly reduce the flood risk in Fairbourne. In accordance with UDP Strategy Policy 5, Policy B29 and Policy B32, a Flood Consequence Assessment (FCA) has been carried out. In summary the FCA reports that the proposal will reduce the risk of flooding to 430 properties from a breach of the tidal defences during a 1 in 200 (0.5%) annual chance flood event, and 90 properties during a 1 in 200 (0.5%) annual flood event from the Afon Henddol.



## Biodiversity

(UDP Policies 2, A1, B15, B16, B20, B21, B27, B33 and B35; Tan 5)

- 8.7 In accordance with TAN 5, and UDP Strategic Policy 2 and Policies A1, B15, B16 and B20, the proposals have been carefully designed with consideration for the potential impacts on the adjacent Pen Llyn a'r Sarnau/ Llyn Peninsula and the Sarnau SAC, and the Aber Mawddach/ Mawddach Estuary SSSI. The design minimises the footprint of permanent works within the designated sites as far as is reasonably practicable. The proposals seek to prevent further damage to the designated site by preventing unauthorised vehicle access and fly tipping on the spit to the west of the Fairbourne embankment. A Test of Likely Significant Effects has been carried out by the Environment Agency Wales in accordance with the Conservation of Habitats and Species Regulations (2010) (as amended). This concluded there to be the potential for likely significant effects on the SAC. An Appropriate Assessment will therefore be undertaken. It is proposed that impacts on the SAC will be mitigated through the creation of new intertidal habitat within the SAC, appropriate consents for which they will be obtained separately from the Fairbourne FRMS. With the inclusion of the mitigation, it is envisaged that there will be no adverse effect on the integrity of the SAC. The Countryside Council for Wales (CCW) confirmed their agreement to this approach in September 2012.
- 8.8 In accordance with UDP Policies 2, A1 and B20, and UDP, careful consideration has been given to the potential ecological effects of the Fairbourne FRMS. Extended phase 1 habitat surveys were undertaken in 2011 and 2012, which identified the scheme area to be dominated by the estuary and main habitats to include salt marsh; coastal mud and sand flats; marshy, coastal and improved grasslands; woodland; scrub; scattered trees; and hedges. The Afon Henddol, and Afon Morfa are within the scheme area; there are numerous drainage ditches, field drains and streams, many of which are lined with common reed, scattered trees, scrub, and field boundaries.
- 8.9 An arboricultural survey has been carried out in accordance with BS5837: Trees in Relation to Construction. The resulting report is included with this planning application. The findings of the following ecological surveys are reported in the Environmental Report that also accompanies this planning application:
- Botanical (phase 2) survey;
  - Breeding and wintering birds survey; and
  - Protected mammals and reptile surveys.
- 8.10 The findings of the ecological surveys undertaken have informed the proposals. The proposals have been designed in consultation with the CCW. Detailed method statements for works with the potential to cause pollution or damage to the designated sites, and reinstatement measures will be agreed with CCW prior to the commencement of construction (outline method statements are provided within the Environmental Report which accompanies this planning application). The scheme sensitively incorporates features and measures that minimise adverse impacts upon protected species, biodiversity and geological conservation.
- 8.11 The existing Henddol outfall will be replaced; the design of the new outfall will enable fish migration. The new flood relief channel has been designed to maintain

normal flow conditions along the existing Afon Henddol channel. These measures will improve conditions for migratory fish species known to be present.

- 8.12 The proposals have been informed by the arboricultural survey and in accordance with UDP Policies B21 and B27, the proposals seek to retain significant trees, wildlife corridors and habitat linkages. This will minimise potential impacts on foraging bats, and foraging and breeding birds.
- 8.13 In accordance with UDP Strategic Policy 2 and Policies A1 and B20 reasonable avoidance measures will be implemented to minimise effects upon salmonid, otter, reptile and breeding birds, including:
- Avoiding in-channel works during the salmonid spawning season and at night time, where possible, with the associated use of lighting.
  - Use of pre-construction ecological surveys to identify changes to the ecological status of the scheme area.
  - The EAP sets out the environmental management measures that will be implemented. This will be updated prior to construction and will form part of the contract documents for the appointed contractor. The objectives and actions will be monitored by an Environmental Clerk of Works (ECW) to ensure all required environmental mitigation measures are carried out.
- 8.14 Realigning sections of the Fairbourne embankment, and works adjacent to the former brick pits site will enable the creation of 1.4 ha of new intertidal habitat and approximately 2 ha of wetland habitat. This contributes to delivery of UDP Strategic Policy 2 and B27, which seeks to safeguard and improve the natural environment. These habitat creation works have been designed in line with the aims of the Natur Gwynedd LBAP to contribute to the conservation of UK priority habitats. The wetland habitat is designed to attract wading bird species including lapwing, a priority species listed within this. Interpretation boards will be installed which will provide public information on the ecological and historical value of the site.
- 8.15 Areas of Japanese Knotweed have been identified within the scheme area and appropriate measures will be employed to manage invasive species, in accordance with UDP Policy B35. A Japanese Knotweed Management Plan will be produced prior to construction, which will set out measures that will be implemented to control the invasive species. Those measures will include the segregation of existing areas of invasive species, and careful control of material potentially contaminated with the rhizome. The proposed five year landscaping maintenance plan, which will be implemented on completion of the works, will include the continued treatment of Japanese Knotweed and other non-native (invasive) species within the scheme area.
- 8.16 In accordance with the Water Framework Directive (WFD), the Western Wales River Basin Management Plan and UDP Policy B33, the proposal will not result in adverse effects on any WFD water bodies. Temporary impacts to watercourses (e.g. pollution from runoff) will be prevented through the use of approved method statements and good working practice on site.



- 8.17 In accordance with UDP Policy B27, the majority of the site area will be reinstated to its current land use. Up to 3.4 ha will be reinstated to an enhanced biodiversity and landscape value through the wetland and intertidal habitat creation works.
- 8.18 It is concluded that the proposed Fairbourne FRMS will not directly adversely affect nature conservation; it will protect Arthog Bog (a composite part of the SAC and SSSI) from tidal inundation, and it will create new habitat that will enhance biodiversity.

### **Visual Amenities**

*(UDP Policies: 2, 4, A1, B12, B14, B27; TAN 12 and 16; Gwynedd SPG: Landscape Character)*

- 8.19 The proposed development is within the Fairbourne, Morfa Mawddach and Mawddach Estuary Historic Landscape Character Areas.
- 8.20 In accordance with UDP Strategic Policy 2, Strategic Policy 4, UDP Policy B12, B14, B27, TAN 12, TAN 16 and Gwynedd SPG: Landscape Character, careful consideration has been given to the potential impact of the proposal on landscape character. This included consideration of the proximity to Snowdonia National Park and associated views.
- 8.21 A comprehensive assessment of the proposed scheme upon the Landscape and Visual Amenity has been carried out and is reported in the Environmental Report that accompanies this planning application. This reports that the sensitive design will result in very low levels of impacts upon landscape character and visual amenity. The proposals will improve existing flood defences and the new permanent features reflect the existing landscape character.
- 8.22 Adverse effects upon landscape character and visual amenity are associated with construction, which will be temporary. Measures designed to minimise the temporary potential impacts include:
- Where reasonably practicable existing trees and other vegetation will be retained and protected. A Tree Protection Plan (TPP) will be prepared and implemented in accordance with BS5837:2012 'Trees in relation to design, demolition and construction'.
  - Construction areas will be landscaped and reinstated, including re-seeding using species of local provenance where appropriate.
  - Soils will be stockpiled and handled in accordance with BS3882:2007 to prevent damage to soil structure or condition.
  - Ground protection measures will be provided where haul roads cross areas of soft landscape, to prevent compaction of soils from movement of plant and machinery.
  - Ripping / de-compaction of soils will be undertaken prior to soft landscape reinstatement to alleviate any compaction resulting from site operations.
  - The site compound area will be partially screened from view by topsoil stockpiles resulting from the wetland creation works.
- 8.23 In accordance with UDP Strategic Policy 4, and Policies B14 and B27, the proposals have been designed to limit adverse effects on the landscape. The replacement Henddol outfall will not be out of character with the area, and the

existing outfall will be effectively disguised by using locally won materials (refer to section 5.7). The proposed flood relief channel will have a naturalistic appearance; the detailed design will include a two-stage channel that will avoid following a straight, engineered course where possible and marginal vegetation will be left to naturally establish. The associated embankments are designed to be the minimum possible size and will be seeded with a local provenance seed mix where required. The new embankment adjacent to the Fairbourne Holiday Village will become a feature of the adjacent wetland habitat creation works, and the retreated sections of the Fairbourne embankment are designed to tie in with the character of the existing embankment to ensure minimal visible contrasts. Refer to drawings 121946-15006, 121946-15011, 121946-11006 and 121946-15004.

- 8.24 In accordance with UDP Policy A1 and the SPG: Landscape Character, the design seeks to protect and improve existing views from adjacent properties. On completion of the works, the new embankment adjacent to the Fairbourne Holiday Village will be integrated with the maintenance access track through the wetland creation site and will not obscure the most scenic elements of the views of the Glan y Mor and Marina Avenue properties. The proposed new wetland habitat will provide an attractive visual interest.
- 8.25 Construction of the proposed scheme will have short term adverse effects on visual amenity in the area. However, the construction areas will be reinstated to their current land use or an improved ecological value, in accordance with UDP Policy B27.

### **Historic Environment**

*(UDP Policies: 3, A1, B7, B12)*

- 8.26 The proposed works are situated within the Fairbourne, Mawddach Estuary and Morfa Mawddach Historic Landscape Character Areas recorded on the Register of Landscapes of Historic Interest in Wales. In accordance with UDP Policy B12, the new flood relief channel, and embankment are sensitivity designed to appear natural in the local landscape and will not adversely affect the historic landscape.
- 8.27 In accordance with UDP Strategic Policy 3, Policy A1, Policy B7 and Policy B12, an Archaeological Desk Based Assessment (DBA) was carried out by Castlering Archaeology in 2009. Subsequently an Archaeological Watching Brief was undertaken by Gwynedd Archaeological Trust during ground investigation works in 2010.
- 8.28 The DBA confirms that the site area does not contain any Scheduled Monuments or any items listed in the Sites and Monuments Record (SMR). The McDougall Brick and Tile Works (Gwynedd Archaeological Trust PRN 1911) and the presence of peat cutting faces (Gwynedd Archaeological Trust PRN 17217) are the only known features of archaeological and historic interest within the site area for works subject to this planning application. Other features of historic interest affected by the proposed permitted development works are addressed within the Environmental Report, which accompanies this planning application.
- 8.29 The permitted temporary compound will be located on the former brickworks site, which is now used as pasture. The brickworks site comprises of an infilled former clay pit and the below ground remains of adjoining buildings and tramway sidings that date back to 1901. Underlying ground and historic remains at the compound

site will be protected from disturbance and compaction by the placing of a geotextile membrane. The Environment Agency Wales' National Environmental Assessment Service (NEAS) Archaeology advise that the siting of the compound in this location will not adversely affect the archaeological interest of the site. Excavation works associated with the wetland habitat creation proposals will take place adjacent to the former brick works site and permitted temporary compound.

- 8.30 Although the Watching Brief did not identify any archaeological activity, it did confirm the existence of peat in the area. Peat cutting was a thriving local industry up until the 20<sup>th</sup> century and the land north of Fairbourne was extensively cut for peat to supply Barmouth with fuel, where evidence of this activity has been identified. Topsoil removal will take place where peat cutting faces have been identified, to enable installation of the temporary access track between the site compound and the Fairbourne embankment.
- 8.31 In accordance with UDP Strategic Policy 3, the scheme has been designed to avoid excavation works within the confines of known historic remains.
- 8.32 In accordance with UDP Policy B7, a detailed archaeological mitigation strategy will be prepared in consultation with the Local Authority Archaeologist and Gwynedd Archaeological Trust (GAT), and implemented in full. It is anticipated that strategy will include:
- Implementation of an intermittent archaeological watching brief during ground breaking operations in areas of archaeological potential to identify any previously unknown archaeological records.
  - Regular archaeological monitoring of ground breaking operations on remaining areas of the scheme.
  - Construction team briefings on archaeological potential and actions in the event that previously unknown archaeology is encountered.
  - Any finds will be reported to the Local Authority Archaeologist and/or coroner (as appropriate), and work in that area will be stopped whilst the find is investigated by an archaeologist.
- 8.33 The EAP, which includes measures to protect archaeological remains, will be updated prior to construction to incorporate the agreed archaeological mitigation strategy.
- 8.34 In accordance with UDP Strategic Policy 3, Policy A1, Policy B7 and Policy B12 it is concluded that delivery of the FRMS will not result in significant adverse impacts on heritage and archaeology.

### **General and Residential Amenities – Noise, Air Quality, Traffic, Public Rights of Ways, Tourism**

*(UDP Policies A1, B23, B33, CH22, and CH33; TANs 11, 12, 16, 18)*

- 8.35 In accordance with TAN 12, TAN 11, TAN 16, TAN 18, and UDP Policies A1, B23, B33, CH22 and CH33, careful consideration has been given to the potential effects of construction on the community of Fairbourne.
- 8.36 Construction activities will be managed through implementation of the EAP, which seeks to minimise potential adverse impacts on amenity. The appointed

contractor will register to the Considerate Constructors Scheme, which encourages best construction practice beyond statutory requirements.

### **Noise**

- 8.37 In accordance with UDP Policy B33 and TAN 11, the EAP includes measures to avoid and reduce the potential noise impact of construction. Those measures include: restricted working and delivery hours; use of appropriately sized and well-maintained equipment; and switching off machinery that is not in use.
- 8.38 In accordance with UDP Policy B33 and TAN 11, noise levels will be monitored to avoid a level of 70 dbA being exceeded<sup>1</sup>. There may be the requirement for short-term exceedances in specified noise levels however, these instances will be kept to a minimum and programmed to occur at the least sensitive times.

### **Air quality**

- 8.39 Construction and earth moving activities have the potential to generate dust. In accordance with UDP Policy B33, road sweeping and dust suppression methods will be employed as required during construction. Topsoil stockpiles will be compacted and dampened down if required to prevent dust generation.

### **Traffic**

- 8.40 The Fairbourne FRMS does not fall within the use categories requiring transport assessments under Annex D.4 of TAN 18. The potential impacts on the local road network are associated with the temporary construction phase only.
- 8.41 Construction will generate on average 20 lorry movements per day. Peaks in lorry movements will occur at the beginning of the construction period when crushed stone will be brought to site to build the temporary haul roads. Material excavated during creation of the wetland habitat will be reused in the construction of the flood defence embankments. A temporary haul route between the habitat creation site, the main site compound and the Fairbourne embankment will reduce the potential construction impacts on the local road network.
- 8.42 The proposed route for vehicular access to the site will be via: A493 – Beach Road – Station Road – Marina Avenue – site. Construction vehicles movements will be managed through the implementation of a Traffic Management Plan (TMP). The TMP will detail: construction vehicle access routes, timings of deliveries, and contingency measures for emergency access.

### **Public Rights of Way (PRoW)**

- 8.43 PRoW 13, which follows a route along the crest of the Fairbourne embankment, will be closed for approximately 6 months during the construction and it will be permanently diverted in two sections to follow the realigned embankment. There is no alternative route available using existing PRoWs. The need for a temporary closure has been agreed with the Local Authority Rights of Way Officers. Path users will be informed of the closures in advance.

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<sup>1</sup> Figure stated as maximum levels of construction site noise for rural, suburban and urban areas during daytime hours (DoE, 1976).

- 8.44 In accordance with TAN 16 and UDP Policies CH22 and CH31, the new route will be surfaced in materials suitable for both pedestrians and cyclists and therefore contribute to extending the existing cycleway network in Fairbourne.

### **Tourism**

- 8.45 Fairbourne is a tourist resort. The summer and winter populations are estimated to be 3000 and 500 respectively. In accordance with UDP Policy B33, the potential impact of the proposed scheme upon tourism has been considered.
- 8.46 Where reasonably practicable, the construction works within Fairbourne village will be timed to avoid impacting upon the areas most commonly frequented by tourists and day visitors during holiday periods, and construction works will be restricted to weekdays only wherever possible. The traffic restrictions on Beach Road during the installation of the culvert will avoid peak holiday periods. The Environment Agency Wales will notify potentially affected landowners and businesses in advance of the construction activity.

### **Sustainability Matters**

*(UDP Policy C7)*

- 8.47 In accordance with UDP Policy C7, the design of the Fairbourne FRMS incorporates features that minimise waste and maximise re-use of materials.
- 8.48 Ground investigations confirm that material excavated from the wetland habitat area consists of sandy, silty clay, which is suitable as fill material to be reused in the construction of the proposed embankments. This proposal accords with the aims of Policy C19. The Contaminated Land: Applications in Real Environments (CL:AIRE) Code of Practice allows the transfer of clean uncontaminated material between schemes where there is an identified and suitable use for the material within the design of the receptor scheme. In accordance with UDP Policies C7, C19 and B33, the reuse of this material will reduce the amount of material imported from elsewhere, and the use of a temporary haul route between the habitat creation and embankment minimises the use of public roads.
- 8.49 A Site Waste Management Plan has been prepared that aims to minimise materials use; reduce waste generated by construction; re-use surplus materials and recycle waste.

## **9 CONCLUSIONS**

- 9.1 The purpose of the Fairbourne FRMS is to improve tidal and fluvial flood protection within Fairbourne and the surrounding area. This includes over 400 residential properties and the Arthog Bog SAC and SSSI.
- 9.2 The FRMS comprises works that are permitted development and proposals that are the subject of this planning application.
- 9.3 The sensitive design will provide flood protection and enhance biodiversity through the creation of 3.4 ha of intertidal and wetland habitat. The proposed methods of construction incorporate measures designed to minimise the potential adverse impacts including disturbance resulting from noise, traffic and visual impacts.

- 9.4 The proposals have been reviewed against the requirements of the national policy and the statutory development plan. The principle of the development is acceptable and the proposals respond positively to the relevant planning policies with regard to flood risk, nature conservation, historic conservation, landscape, amenity, resource use and construction management.