ARUP

**Carmarthenshire County Council**

# Machynys Hotel

## Water Framework Directive (WFD) Assessment

Reference: WFD/04

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Job number 278688

**Ove Arup & Partners Limited**
4 Pierhead Street
Capital Waterside
Cardiff
CF10 4QP
United Kingdom
arup.com

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# 1. Introduction

## 1.1 Project background

Ove Arup and Partners Ltd ('Arup') has been commissioned by Carmarthenshire County Council ('CCC') to undertake a Water Framework Directive (WFD) Assessment for a new 120-bed hotel and associated works, located on land to the west of Nicklaus Avenue, Machynys, Llanelli, Carmarthenshire.

This report is to support an application for outline planning permission by CCC for the development of a '120-bed hotel with associated car parking, access roads, landscape and infrastructure works, including the importation of material for infilling of land to raise level for the development'.

The assessment also considers the WFD compliance (standalone and cumulative) of a separate planning application to be submitted for the site, seeking permission for 9 residential units.

## 1.2 Purpose of this report

Under the WFD[1], all proposed schemes with the potential to impact upon WFD-designated water bodies must be assessed to ensure:

- no deterioration of the current status or potential of any WFD quality elements; and
- no prevention of future attainment of the 'good' status or potential objectives of any WFD quality elements.

This report identifies the activities related to the proposed developments and considers whether they may cause deterioration or prevent a water body (or a water bodies classification elements) from meeting their objectives. The report follows the coastal WFD assessment scoping template[2], along with a detailed impact assessment of residual risk identified.

## 1.3 Other relevant reports

This WFD Assessment should be read in conjunction with the following key documents that form part of the outline planning submissions for the proposed developments:

- Utilities and Drainage Strategy;
- Flood Consequences Assessment;
- Outline Construction Environmental Management Plan; and
- Carmarthenshire County Council SuDS Scheme Application for SuDS Approving Body (SAB) Approval – Wales

[1] European Commission. Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy.

[2] https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters#:~:text=How%20to%20assess%20the%20impact%20of%20your%20activity

# 2. Legislative context

The EU WFD has been in force since 2000 and is currently the largest and most influential piece of EU legislation relating to the water environment. The Directive was transposed into UK law by The Water Environment (Water Framework Directive) (England and Wales) Regulations (amended 2017). Natural Resources Wales is the competent authority responsible for delivering the Directive in Wales.

The WFD aims to protect and enhance the quality of the water environment across all EU Member States. It takes an integrated approach to the sustainable management of water by considering the interactions between surface water, groundwater and water-dependent ecosystems.

Under the WFD, 'water bodies' are the basic management units and are defined as all or part of a river system or aquifer. These water bodies form part of a larger River Basin District (RBD), for which River Basin Management Plans (RBMPs) are developed by EU Member States and environmental objectives are set. These RBMPs are produced every six years, in accordance with the river basin management planning cycle.

The WFD requires all EU Member States to classify the current condition or 'status or potential' of surface water and groundwater bodies and to set a series of objectives for maintaining or improving conditions so that water bodies reach and/or maintain 'good status or potential'. These overall Environmental Objectives are to:

- prevent the deterioration in the status of aquatic ecosystems, protect them and improve the ecological condition of waters;
- aim to achieve at least 'Good' status for all water bodies by 2015. Where this is not possible and subject to the criteria set out in the Directive, aim to achieve Good status by 2021 or 2027;
- meet the requirements of Water Framework Directive Protected Areas;
- promote sustainable use of water as a natural resource;
- conserve habitats and species that depend directly on water;
- progressively reduce or phase out the release of individual pollutants or groups of pollutants that present a significant threat to the aquatic environment;
- progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants; and
- contribute to mitigating the effects of floods and droughts.

All new (and current on-going) activities in the water environment now need to be guided by the requirements of the WFD. This includes ensuring that no changes occur that causes a deterioration of current status of a water body or prevents the achievement of the future status objectives of a water body. This principle is now integrated into the planning application process for proposed developments/activities.

# 3. Project details

Table 1: Machynys Hotel project details

| Your activity | Description, notes or more information |
|---|---|
| Applicant name | Carmarthenshire County Council |
| Name of activity | Development of hotel and associated works; and<br>Development of nine residential units.<br>Both on land near the coast, south of Llanelli town centre. |
| Brief description of activity | Construction of a 120 bed hotel with associated car parking, access and landscaping.<br>As indicated in the Flood Consequences Assessment, the buildings, car parking and site roads will need to be raised to comply with the requirements of TAN15.<br>Consequently, ground levels will need to be uplifted across part of the site to allow development to proceed. |
| Location of activity (central point XY coordinates or national grid reference) | 250854, 198351 |
| Timings of activity (including start and finish dates) | Development of the site is subject to an outline planning application and therefore likely construction dates are currently unknown. |
| Extent of activity (for example size, scale frequency, expected volumes of output or discharge) | See Red Line Boundary on Figure.<br>Outfalls: Plant records confirm that public sewers exist to the south west of the development. This surface water sewer outfalls into the ditch to the south of the proposed hotel site.<br>Discharge rates will be reduced by a combination of SuDS components. This includes use of permeable paving in the car park, bioretention systems, dry pond and swale which will restrict and attenuate flows from the site. |
| Use or release of chemicals (state which ones) | As stated within the Utilities and Drainage Strategy, it is intended that foul water is collected and discharged to the Welsh Water network for treatment. Any run off from the car park or roofs will be drained via SuDS on-site, which will sufficiently minimise pollutants in the water. |

# 4. WFD assessment methodology

## 4.1 Scope of assessment

The assessment comprises of up to three stages, as recommended by The Planning Inspectorate, to assess the potential for each proposed activity (individually and in combination) to impact on individual (or multiple) WFD quality elements:

1. Screening - exclude any activities that do not need to go through the scoping or detailed assessment stages;
2. Scoping - identify the quality elements that are potentially at risk from the proposed activity and need further detailed assessment; and
3. Detailed Assessment - consider the potential impacts of an activity on bodies of surface and ground water, identify ways to avoid or minimise impacts, and identify if an activity may prevent the water body achieving good status or cause deterioration.

At each screening and scoping stage, if effects are ruled out, no further assessment is required.

## 4.2 Data sources

The following data sets and resources have been used to inform this assessment:

- Western Wales River Basin District Management Plan 2021-2027[3];
- Water Watch Wales Map Gallery- Water Framework Directive (WFD) data, classifications and mitigation measures[4];
- Ordnance Survey (OS) Open Data[5];
- Arup (2024) Machynys Hotel Utilities and Drainage Strategy
- Carmarthenshire County Council SuDS Scheme Application for SuDS Approving Body (SAB) Approval – Wales[6]
- Historic OS maps[7].

[3] Western Wales River Basin District Management Plan 2015 - 2021. Available at: https://naturalresources.wales/evidence-and-data/research-and-reports/water-reports/river-basin-management-plans/river-basin-management-plans-published/?lang=en

[4] Water Watch Wales Map Gallery website. Available at: https://waterwatchwales.naturalresourceswales.gov.uk/en/ https://magic.defra.gov.uk/MagicMap.aspx

[5] Ordnance Survey Open Data maps. Available at: https://www.bing.com/mapspreview

[6] Carmarthenshire County Council, 2020. Carmarthenshire County Council SuDS Scheme Application for SuDS Approving Body (SAB) Approval – Wales (for Machynys Hotel development)

[7] National Library of Scotland – historical OS maps. Available at: http://maps.nls.uk/os/

# 5. WFD baseline information

The application site borders the Burry Inlet (Inner) and Burry Inlet (Outer) water bodies on the Loughor Estuary. The site drains southwards into the local drainage network which eventually drain into the transitional water body.

The Burry Inlet (Inner) transitional water body is approximately 560m south-east of the site and is thought to receive surface waters from the site via the local drainage network.

The Burry Inlet (Outer) coastal water body is approximately 210m north and 500m west of the site. There is no direct hydrological connection to the site, although treated wastewater is discharged to the water body from the Welsh Water network.

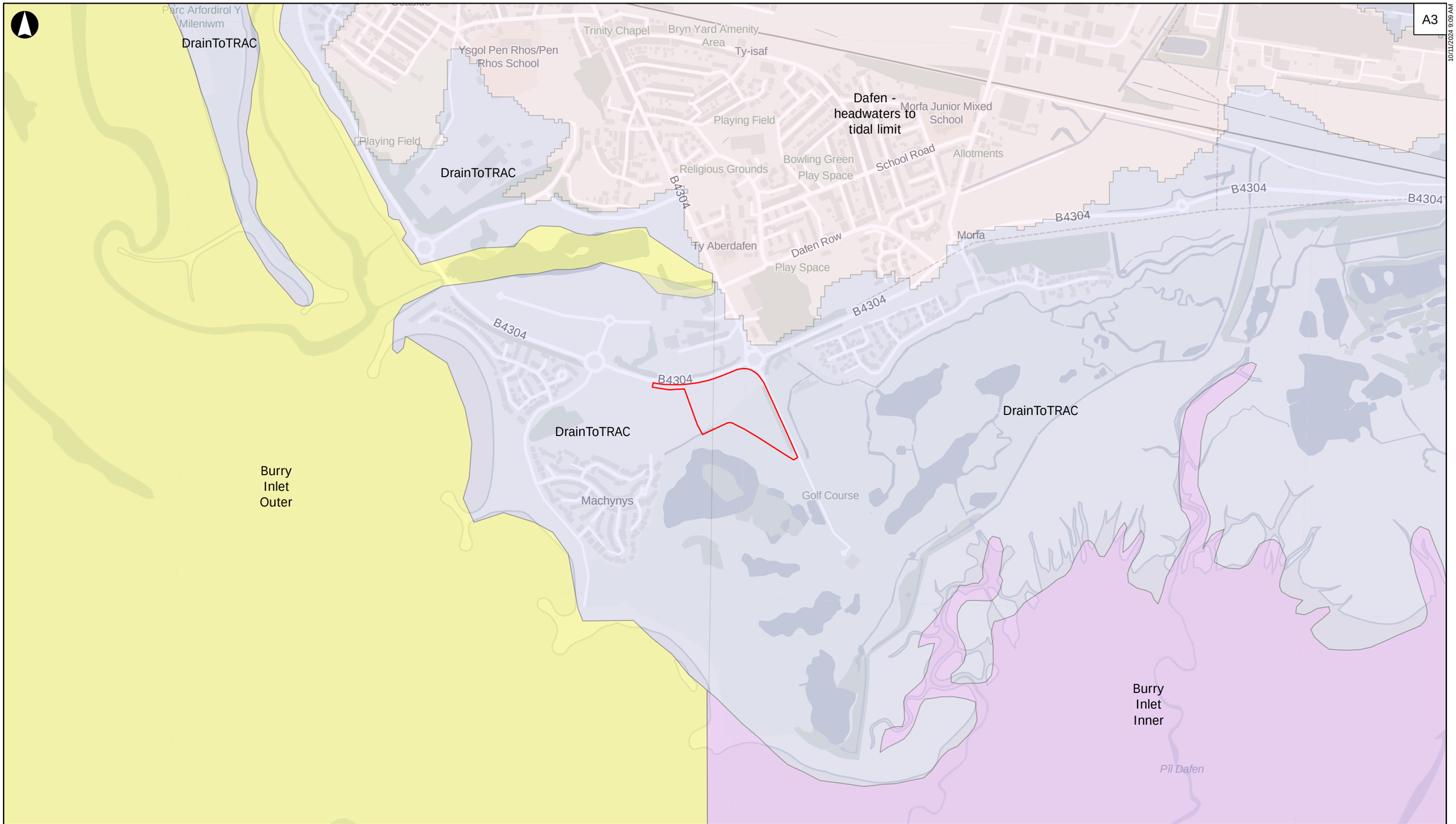
The Dafen – headwaters to tidal limit river waterbody is approximately 70m north-east of the site but has no hydrological connection to the site. As there is no pathway for effect to the Dafen – headwaters to tidal limit water body, it is not considered any further within the assessment.

Figure 1 shows the location of the site relative to surrounding WFD water bodies.

Table 2: WFD baseline for potentially affected waterbodies

| WFD Water body[8] | Burry Inlet Outer | Burry Inlet Inner |
|---|---|---|
| Water body ID | GB641008180000 | GB531005913500 |
| River basin district name | Western Wales | Western Wales |
| Water body type (estuarine or coastal) | Coastal | Transitional/estuarine |
| Water body total area ($km^2$) | 77.29 | 11.17 |
| Overall water body status (2016) | Moderate | Poor |
| Ecological status | Moderate | Poor |
| Classification Elements Driving Status | Dissolved Inorganic Nitrogen (Moderate)<br>Phytoplankton (Moderate) | Dissolved Inorganic Nitrogen (Moderate)<br>Phytoplankton (Poor) |
| Chemical status | High | High |
| Target water body status and deadline | Good by 2027 | Good by 2027 |
| Heavily modified water body and for what use | N/A | N/A |
| Higher sensitivity habitats present | Intertidal seagrass beds, saltmarsh, Mussel Beds (Modiolus modiolus, Mytilus edulis & others) (A1.22, A2.72, A5.62, A4.24, A3.361) | Intertidal seagrass beds, saltmarsh, Mussel Beds (Modiolus modiolus, Mytilus edulis & others) (A1.22, A2.72, A5.62, A4.24, A3.361) |
| Lower sensitivity habitats present | Rocky shore (intertidal rock A1), Subtidal Soft Sediment (Sand, Mud & Mixed A5.2, A5.3, A5.4), intertidal Soft Sediment (Sand, Mud & Mixed A2.2, A2.3, A2.4) | Rocky shore (intertidal rock A1), Subtidal Soft Sediment (Sand, Mud & Mixed A5.2, A5.3, A5.4), intertidal Soft Sediment (Sand, Mud & Mixed A2.2, A2.3, A2.4) |
| Phytoplankton status | Moderate<br>Phytoplankton blooms (2015) | Poor |
| History of harmful algae | None known | None known |
| WFD protected areas within 2km | Shellfish Water Protected Area - Burry Inlet (South)<br>Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC and Burry Inlet SPA | Shellfish Water Protected Area - Burry Inlet (South)<br>Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC and Burry Inlet SPA |
| Reasons for Not Achieving Good Status | Continuous and intermittent point source sewage discharge (Confirmed)<br>Point source domestic sewage (Suspected)<br>Diffuse source runoff from agriculture (Probable). | Continuous and intermittent point source sewage discharge (Confirmed)<br>Point source domestic sewage (Suspected)<br>Diffuse source runoff from agriculture (Probable). |

[8] *Water body information can be found in the Environment Agency's catchment data explorer and the water body summary table. Magic maps provide additional information on habitats and protected areas. Links to these information sources can be found in the WFD assessment guidance for estuarine and coastal waters.*

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Coordinate System: British National Grid

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| P01 | 01-10-2024 | RT | RT | AP | AP |

ARUP
13 Fitzroy Street
London W1T 4BQ
Tel +44 20 7636 1531
www.arup.com

Client
**Carmarthenshire County Council**

Project Name
**Machynys Hotel**

Drawing Title
**WFD Water Bodies**

Scale at A3
**1:10,000**

Role
**ENVIRONMENT**

Suitability
**FOR INFORMATION**

Project Number
**278688**

Rev
**P01**

Drawing Name
**WFD Water Bodies**

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# 6. Screening assessment

The proposed development has the potential to affect the status of WFD quality elements in the Burry Inlet Inner and Outer waterbodies resulting from:

- Leaks / spills and sediment runoff during construction;
- Runoff of pollutants from the site during operation (e.g. wastewater and fertilizers from garden areas).

Given the proximity of the protected areas to the site it is considered that these effects have the potential to pose a potential pathway to effect to the current WFD status of the Burry Inlet (Outer) and Burry Inlet (Inner) coastal waterbodies. Further assessment of the potential impact on the affected WFD waterbodies is therefore required.

# 7. Scoping assessment

The following scoping assessment follows the structure presented in the Environment Agency's Water Framework Directive assessment: estuarine and coastal waters scoping template [9].

## 7.1 Hydromorphology

Table 3: Consideration of hydromorphology risk issues associated with any activities on site

| Consider if your activity: | Yes | No | Hydromorphology risk issue(s) |
|---|---|---|---|
| Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status | | Impact assessment not required | Burry Inlet Outer is at high status. Burry Inlet Inner is not high. There will not be a hydromorphological impact as the development area is located outside of the waterbodies and is relatively small compared to the size of the waterbodies, and poses no risk of significant changes to flows or hydromorphology. |
| Could significantly impact the hydromorphology of any water body | | Impact assessment not required | As above |
| Is in a water body that is heavily modified for the same use as your activity | | Impact assessment not required | N/A |

[9] Environment Agency. Water Framework Directive assessment: estuarine and coastal water Scoping Template. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/577892/wfd_scoping_template.odt

## 7.2 Biology

### Habitats

**Table 4: Details of higher sensitivity habitats and lower sensitivity habitats on-site**

| Higher sensitivity habitats[10] | Lower sensitivity habitats[11] |
|---|---|
| Intertidal seagrass beds | Rocky shore |
| Saltmarsh | Subtidal soft sediment (sand, mud and mixed) |
| Mussel beds | Intertidal soft sediment (sand, mud and mixed) |

**Table 5: Consideration of biology habitats risk issues associated with any activities on site**

| Consider if the footprint[12] of your activity is: | Yes | No | Biology habitats risk issue(s) |
|---|---|---|---|
| 0.5km$^2$ or larger | | Impact assessment not required | Combined direct and indirect footprint of the proposed development does not exceed 0.5km$^2$ |
| 1% or more of the water body's area | | | Not ≤ 1% of water body area |
| Within 500m of any higher sensitivity habitat | | | All Higher Sensitivity Habitat at least 0.8km of the development |
| 1% or more of any lower sensitivity habitat | | | Subtidal Soft Sediment, Rockyshore, Intertidal Soft Sediment and Gravel & Cobbles to the south of the proposed development in Burry Inlet (Inner) and Burry Inlet (Outer). Footprint of the proposed development does not affect the waterbody itself.<br>Rockyshore 1.5 km from the proposed development.<br>Intertidal soft sediment and gravel & cobbles 1 km from the proposed development. |

[10] Higher sensitivity habitats have a low resistance to, and recovery rate, from human pressures.

[11] Lower sensitivity habitats have a medium to high resistance to, and recovery rate from, human pressures.

[12] Note that a footprint may also be a temperature or sediment plume. For dredging activity, a footprint is 1.5 times the dredge area.

Fish

**Table 6: Consideration of biology fish risk issues associated with any activities on site**

| Consider if your activity: | Yes | No | Biology fish risk issue(s) |
|---|---|---|---|
| Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary | | No – Go to next section | N/a |
| Could impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow) | | No - Go to next section | N/A |
| Could cause entrainment or impingement of fish | | No - Go to next section | N/A |

## 7.3 Water quality

Table 7: Consideration of any water quality risk issues associated with any activities on site

| Consider if your activity: | Yes | No | Water quality risk issue(s) |
|---|---|---|---|
| Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days) | Requires impact assessment | | No construction activities are to take place below MHWS.<br>There is the potential for the pollution of coastal waters by leaks and spills from plant and equipment and contaminated runoff from the site both during and post-construction. This presents a potential pathway for increase in suspended solids and decreased oxygen levels. |
| Is in a water body with a phytoplankton status of moderate, poor or bad | Requires impact assessment as drains to Burry Inlet | | Burry Inlet (Inner) - poor<br>Burry Inlet (Outer) - moderate |
| Is in a water body with a history of harmful algae | | Not known | No evidence in WFD data, however there are two records of harmful algae events in Burry Inlet on the Harmful Algae Event Database. There was an algal bloom in 1990, likely to be Gymnodinium spp. (10,000,000 cells/L), occurring between August and September of that |

| Consider if your activity: | Yes | No | Water quality risk issue(s) |
|---|---|---|---|
| | | | year, affecting coastal waters between Burry Inlet/Swansea Bay to Fishguard in the south west. This was potentially caused by anoxic conditions. The algal bloom resulted in mortalities along the S. West coast, and there were secondary blooms of bacteria (Pseudomonads and Vibrios). |
| If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if: | Yes | No | Water quality risk issue(s) |
| The chemicals are on the Environmental Quality Standards Directive (EQSD) list | Requires impact assessment | | Construction:<br>Potential to mobilise or release pollutants during construction works. Site information is limited at this early stage.<br>Operation:<br>Foul water will be discharged to the Welsh Water network for suitable treatement.<br>Runoff from impermeable areas will be passed through a SuDS system before being discharged to the Welsh Water network for treatment. This has the potential to create a pollutant pathway to the WFD water bodies. |
| It disturbs sediment with contaminants above Cefas Action Level 1 | | No - Impact assessment not required | No disturbance of sediment below MHWS. |
| If your activity has a mixing zone (like a discharge pipeline or outfall) consider if: | Yes | No | Water quality risk issue(s) |
| The chemicals released are on the Environmental Quality Standards Directive (EQSD) list | | No – impact assessment not required | Direct discharge to the water bodies is not being proposed. Runoff from the site will pass through a SUDS system prior to discharge to the wider water environment. |

## 7.4 WFD protected areas

Table 8: Consideration of WFD protected area risk issues associated with any activities on site

| Consider if your activity is: | Yes | No | Protected areas risk issue(s) |
|---|---|---|---|
| Within 2km of any WFD protected area[6] | Requires impact assessment | | Proposed development is 560 m from Shellfish Water Protected Area - Burry Inlet (South)<br><br>Proposed development is 500 m from Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC<br><br>Proposed development is 560 m from Burry Inlet SPA |

## 7.5 Invasive non-native species (INNS)

Table 9: Consideration of INNS risk issues associated with any activities on site

| Consider if your activity could: | Yes | No | INNS risk issue(s) |
|---|---|---|---|
| Introduce or spread INNS | Requires impact assessment | | Construction works have the potential to introduce and/or spread INNS. Suitable Contractor method statement required. |

## 7.6 Scoping summary

Table 10: Summary of all risk issues for receptors considered within the impact assessment

| Receptor | Potential risk to receptor? | Note the risk issue(s) for impact assessment |
|---|---|---|
| Hydromorphology | No | Burry Inlet (Inner) and Burry Inlet (Outer) are not heavily modified, the proposed development is outside of the waterbodies themselves and are not anticipated to result in any changes to flows or sediment transport. |
| Biology: habitats | No | Lower sensitivity and higher sensitivity habitats present in the water bodies are not at risk as the footprint of the proposed development is outside of the waterbodies and is less than 1% of the water body area or the lower sensitivity habitat area, the combined direct and indirect footprint of the proposed development does not exceed 0.5km$^2$ and higher sensitivity habits are more than 500m from the proposed development. |
| Biology: fish | No | No risk to fish in terms of impacting normal fish behaviour, migration through the estuary of Burry Inlet (Inner) or risk of entrainment or impingement. |
| Water quality | Yes | There is the potential for the pollution of coastal waters by leaks and spills from plant and equipment and contaminated runoff from the site both during and post-construction. This presents a potential pathway for temporary increase in suspended solids and decreased oxygen levels.<br><br>Burry Inlet (Inner) has a phytoplankton status of poor, and Burry Inlet (Outer) is moderate. Evidence from Harmful Algae Event Database has two records of events in Burry Inlet in 1990 and 2009.<br><br>Construction may mobilise or release pollutants, however site information is limited at present. During operation, any foul water will be discharged to the Welsh Water network and runoff will be passed through a SuDS before being discharged for treatment; this has potential to create a pollutant pathway to the WFD water bodies. No disturbance of sediment below MHWS. |
| Protected areas | Yes | The site is within 750m of 3 Protected Areas including: Shellfish Water Protected Area - Burry Inlet (South), Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC and Burry Inlet SPA. |
| Invasive non-native species | Yes | Construction works have the potential to introduce and/or spread INNS. Suitable Contractor method statement required. |

# 8. Detailed assessment

The WFD Scoping Assessment identified potential risks to the following receptors: water quality, WFD protected areas and potential to introduce and spread INNS.

## 8.1 Water quality

### Water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns

The potential pollution source during both construction and post-construction is contaminated runoff from the site resulting from leaks and spills from plant and equipment. This presents a potential pathway for increase in suspended solids and decreased oxygen levels. This could affect both chemical and ecological WFD elements.

The Outline Construction Environmental Management Plan (CEMP) will be adhered to, to ensure industry standard practice working methods and mitigation measures set out in Guidance for Pollution Prevention (GPPs) are implemented. This includes details of the management of water and sediment across both sites and provisions to minimise the likelihood of run-off, provide containment of spillage and capture or treat wastewaters where necessary. These mitigations are intended to prevent impacts upon surface water or groundwater quality.

As concluded within the Utilities and Drainage Strategy effective treatment of surface run-off via SuDS and green infrastructure measures would sufficiently minimise the risk of contaminants leaving the site.

Therefore, with the above mitigation measures incorporated, no permanent impacts on the status or future potential of WFD quality elements are expected.

### Chemicals released from discharge are on the EQSD list

Direct discharge to the water bodies is not being proposed, so there is very low risk of chemicals on the EQSD list being released into the water bodies.

As detailed above, a CEMP will be written and adhered to, to ensure industry standard practice working methods and mitigation measures are implemented to minimise risks to WFD quality elements during the construction phase. This will include mitigation measures management of earthworks and stockpiles to prevent releases of run-off and appropriate measures for dealing with any unexpected contamination encountered.

Therefore, surface water discharge is not expected to affect status or future potential of WFD quality elements as a result of the proposed development.

### History of harmful algae

Two records of harmful algae events were found for Burry Inlet on the Harmful Algae Event Database, although none were found in NRW data so it is difficult to gauge the significance of these events due to limited information. The records are dated 1990 and 2009. The algal bloom in 1990 was likely to be Gymnodinium spp. (10,000,000 cells/L), occurring between August and September of that year, affecting coastal waters between Burry Inlet/Swansea Bay to Fishguard in the south west and was potentially caused by anoxic conditions. The algal bloom resulted in mortalities along the south west coast of the UK, and was followed by secondary blooms of bacteria (Pseudomonads and Vibrios).

In 2009, an event labelled ‘seafood toxins’ occurred (found in cockles, Mytilus edulis) and was caused by DSP. It affected Brixham, Burry Inlet, Swansea and Colwyn Bay. It was first detected in April and ended in May. This history of harmful algae has been considered as surface run-off can be a source of nutrients to WFD waterbodies. Foul water will be discharged to the Welsh Water network where it will be treated as per their discharge permit requirements

Surface run-off will be the only discharge into Burry Inlet (Inner). As detailed within the Utilities and Drainage Strategy report, the SuDS treatment measures incorporated during the construction and post-

construction phases of development would effectively remove pollutants from surface run-off. The nutrient load of Burry Inlet (Inner) and Burry Inlet (Outer) would therefore not be affected and impacts on the harmful algae are not expected to affect the status or future potential of WFD quality elements of this waterbody as a result of the proposed development.

## 8.2 WFD protected areas

Burry Inlet is a waterbody designated as 'Shellfish Waters', divided into North and South, encompassing the shoreline ~750m from the proposed development. Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC and Burry Inlet SPA are two protected areas that are also located ~750m from the proposed development. These waters place specific restrictions on microbial pollution.

A separate Habitats Regulations Assessment (HRA) screening (Stage 1) and Appropriate Assessment (Stage 2) is being undertaken, assessing the potential for effects on international statutory sites as required by Regulation 63(1) of the Habitats Regulations.

As is the case for harmful algae, surface run-off treatment measures included in the scheme design will ensure the surface waters leaving the site do not increase the nutrient load entering the Burry Inlet Shellfish.

As considered in detail in the HRA, the proposed development is not expected to impact upon WFD protected areas, including the Shellfish Waters, the Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC and Burry Inlet SPA.

## 8.3 Invasive non-native species

The construction works have the potential to introduce and spread INNS. An Invasive Species Management Plan will be written and delivered by a professional contractor licensed to remove and manage INNS on site including Japanese knotweed. The management plan will be effective during the construction and operational phases of the scheme.

Providing this management plan is adhered to, construction of the Machynys Hotel would not be expected to affect the status or future potential of WFD quality elements as a result of the proposed development.

# 9. Conclusion

The assessment has considered the potential risks to WFD receptors associated with the proposed development, concluding that the risk which the proposed development poses to the water environment does not, either alone or in-combination with other projects, give rise to any adverse effects upon the Burry Inlet (Inner) transitional water body and Burry Inlet (Outer) coastal WFD water bodies or habitats or prevent them from attaining good status in the future.

In alignment with the HRA prepared for the proposed development, no impacts to WFD protected areas, including the Shellfish Waters, the Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC and Burry Inlet SPA are anticipated.

This assessment has been based on currently available WFD baseline data and design information for the proposed development. It should be reviewed and updated during construction, particularly if:

- The NRW update or provide additional WFD baseline data for the relevant water bodies; and/or
- Significant changes to the nature, spatial extent, scale or construction methods of the proposed development are made.

The outcomes of this assessment should be shared and agreed with the NRW (as the regulatory authority for the WFD in Wales).