# Pollution Prevention Plan

## Land at Caerleon Road, Dinas Powys

June 2017

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## INTRODUCTION

1.1 This Pollution Prevention Plan has been prepared by Asbri Planning on behalf of Keir Living to provide details on the requirements for the management pollution prevention throughout the construction phase of the project at land at Caerleon Road, Dinas Powys.

1.2 A material consideration in the determination of the development was the possible impact on site and surrounding area as well as a brook located adjacent to the site, along its western boundary. Consequently, this was a key reason for the implementation of condition 10 on the original outline consent (2014/00282/OUT) which requires the applicants to submit a Construction Environmental Management Plan to demonstrate that the development would not lead to any likely significant effects on the surrounding area and to ensure there is minimal disturbance to ecology and natural habitats connected to the site.

1.3 The appointed Contractor for the works will ensure that the actions contained in this Pollution Prevention Plan are fully complied with during the construction of the development.

1.4 The Statement will be structured in the following format:

2.0 Site Location
3.0 Planning Context
4.0 Pollution prevention
5.0 Site specific pollution prevention measures
6.0 General pollution prevention measures
7.0 Water environment

## SITE LOCATION

### Site Location

2.1 The application site is located in the north-east of Dinas Powys, in an area known as Eastbrook. It is approximately 4.9 km from the centre of Penarth, approximately 8.7 km away from Barry town centre and approximately 8.5 km from Cardiff City Centre.

2.2 The site is located off Caerleon Road part of an established residential area served off Castle Drive and Murch Road. The site is close to Eastbrook railway station and the nearest major road is Cardiff Road/A4055, which links Cardiff and Barry and which runs parallel with the railway line to the west. The site is located in a sustainable location in terms of public transport and access to facilities.

### Site Features

2.3 The site is located off Caerleon Road part of an established residential area served off Castle Drive and Murch Road. The site comprises mainly of unmanaged neutral grassland, which, for the most part is enclosed by substantial hedgerow boundaries.

2.4 The site and its surrounding area were previously located within an area of Green Wedge, as defined in the Unitary Development Plan, however, the Vale of Glamorgan UDP has since been superseded by the adoption of the Local Development Plan on 28th June 2017 which shows that the site is no longer defined as Green Wedge, instead the settlement boundary has extended to include the site and that the site has been designated for housing allocation in accordance with policy MG 2.

2.5 In terms of surroundings, the southern site boundary comprises the curtilages of residential properties along Caerleon Road, which face side on to the site. The site abuts the railway line on the western boundary but is separated from it by the mature hedgerows. A culverted watercourse runs parallel to the railway. The north and east boundaries are also comprised of mature hedgerows beyond which are additional field parcels used predominately for grazing.

## PLANNING CONTEXT

3.1 An outline planning application for the development of up to 70 no. dwellings and associated works was submitted to Brecon Beacons National Park by Asbri Planning on behalf of Keir Living. The application no. 2014/00282/OUT was delegated to committee and was subsequently granted on the 25th May 2017 subject to conditions.

3.2 Condition 10 relates to a Construction Environmental Management Plan (CEMP) including a requirement for measures for the protection of the adjacent brook from pollution including an assessment of risks from all pollution sources and pathways and describe how these risks will be mitigated. Condition 10 is stated in full below:

***(10)*** "***No Development shall take place until there has been submitted to, approved in writing by the Local Planning Authority a Construction Environmental Management Plan (CEMP). The CEMP shall include details of how noise, lighting, dust and other airborne pollutants, vibration, smoke, and odour from construction work will be controlled and mitigated along with measures for the protection of the adjacent brook from pollution (including an assessment of risks from all pollution sources and pathways and describe how these risks will be mitigated). The CEMP will utilise the Considerate Constructors Scheme (www.considerateconstructorsscheme.org.uk). The CEMP will include a system for the management of complaints from local residents which will incorporate a reporting system. The construction of the Development shall be completed in accordance with the approved Plan unless otherwise agreed in writing with the Local Planning Authority."***

3.3 This Pollution Prevention Plan will outline and provide the required details to supplement the Construction Traffic and Environmental Plan submitted to discharge condition 10 on the approved outline consent. The Statement will focus primarily on the requirement to provide measures for the protection of the adjacent brook from pollution, as requested.

## POLLUTION PREVENTION

### Definitions and Potential Pollution Sources

4.1 Pollution may be defined as the introduction of a contaminant into air, land or water, resulting in an impact (generally negative) to the ecosystem into which the substance is released.

4.2 Pollution may arise as a result of poor planning and implementation of management procedures associated with traffic, plant and materials handling, waste management, surface water and drainage management, and concrete management.

4.3 An environmental incident which pollutes the local environment will typically be, but not limited to, the following examples:

- Minor oil spills away from watercourses;
- Not working in accordance with specific environmental procedures designed to prevent pollution during the works;
- An event (one off) or series of events which contribute towards causing the environmental hard i.e. silting up of the adjacent beach and sea, oil spillage leading to the adjacent watercourse etc.
- A breach of consent conditions.
- Issue of a statutory enforcement notice by the Local Authority or Natural Resources Wales.

4.4 There are a number of potential sources of pollution from construction works which may adversely impact upon both terrestrial and aquatic ecosystems:

- Run-off from exposed ground, excavations and material stockpiles, (i.e. Silt);
- Cement and cement wash from concrete patching plants, storage areas and other areas where cement grout or concrete is being applied;
- Plant washing and vehicle wheel wash areas;
- Fuel and chemical storage / refuelling areas;
- Leaking / vandalised plant and equipment; and
- Sewage and waste water from construction compound and permanent control building amenities.

4.5 Pollution from fuels, cement run-off, other chemicals and silt or other particulate matter can pose a significant risk to both terrestrial and aquatic habitats, potentially resulting in direct mortality of fish, invertebrates and vegetation as well as longer term effects on fresh water ecology.

## GENERAL POLLUTION PREVENTION MEASURES

5.1 The following points indicate general pollution prevention measures in accordance with those highlighted within the guidelines referenced above:

- Any material or substance which could cause pollution, including silty water, will be prevented from entering surface water drains or water courses by the use of (and appropriate) placement of straw bales, silt fences, cut-off drains, silt traps and drainage vegetated areas where appropriate.
- Silt traps etc. are to be used to enable silty water to settle as much as possible and channelled into vegetated areas to allow the settlement of solids.
- A 20m buffer from all watercourses is to be maintained from sites of refuelling / storage. Drip trays / spill kits to be available at these sites. These are to be sited to prevent the downward percolation of contaminants to natural soils and groundwater.
- Stores of Fuel/oil/chemicals to be contained with bund of 110% capacity with impervious base. Rainwater is not to be allowed to accumulate to compromise the stated capacity.
- Site compounds, parking areas and turning areas and vehicle and equipment washing areas are to be sited at least 10 metres from water courses.
- All waste and stockpiled materials will be stored in designated areas and isolated from any surface drains.
- The use of cut-off ditches, silt fences, silt traps and drainage to vegetated areas will be employed as required / appropriate in areas of excavation, exposed soils, stockpiling, dewatering and plant and wheel washing.
- A Personnel Site Induction will make specific reference to required pollution prevention measures as detailed in the guidance discussed above. All works will be carried out in accordance with best practice and will aim to prevent deterioration in the ecological status of surface waters and to avoid compromising the restoration potential of such waters.
- Consideration for the installation of speciality treatment plant such as ‘siltbuster’ should be considered where appropriate
- In the event of a pollutant spillage on site, the material will be contained (using an absorbent material such as sand or soil or commercially available booms).

## SITE SPECIFIC POLLUTION PREVENTION MEASURES

6.1 The Contractor will ensure that sufficient numbers of spill kits will be positioned at all risk areas. These are to be checked daily by the Site Manager or delegated responsible individual (nominated person) and recorded on the Site's Environmental Checklist form. The spill kits will be clearly labelled and the materials (contents) enclosed listed and kept up to date along with the spill procedure details. All spill kits are to be labelled on a location plan which is to be updated regularly to reflect any changes.

6.2 Used materials from spill kits will be disposed of appropriately, and replaced immediately. Appropriate waste facilities will be available for contaminated materials. These will be kept separate from any other non-contaminated wastes.

6.3 The emergency preparedness and response procedure (to be defined the Contractor) will be followed in the event of an emergency on site. The emergency preparedness plan will ensure that the relevant staff are aware of their responsibilities and the processes to be followed in the event of a possible, probably or actual incident involving pollution into the adjacent watercourse.

6.4 The construction site will where possible use double bunded plant or equipment, where double bunded plant or equipment is not available, there will be an additional method of containment to ensure no pollution or spillages occur. This may be in the form of plant nappies and / or drip trays. Where drip trays are used, suitable methods for emptying will be employed, such as with hand held pump and the containment water disposed of correctly. The trays will be checked daily (more during wet weather) to ensure no build-up of contained water overspill from the tray.

6.5 All bulk fuel tanks will be adequately protected (including concrete bund) to prevent major spillage in the event of hose failure or other equipment malfunction. The protection must include use of sandbags and booms to create a protective barrier around the equipment. (Alternatively, bunded tanks should be used where possible).

6.6 Initial plant set-up will be checked. The amount of fuel in the tanks on arrival will be recorded. Only authorised personnel may have access to generator enclosures and they must be kept locked at all times.

6.7 In the event that a wheel-wash facility is required to be provided to prevent the spreading of any contamination onto local roads, this will be installed accordingly. All vehicles carrying waste away from the construction site must use covers to prevent any loss of load and additional dust.

6.8 The Site Manager will undertake weekly Health, Safety and Environmental Inspections to ensure the procedures listed above are being followed.

## WATER ENVIRONMENT

7.1 The removal of established vegetative cover can lead to the loss of large quantities of soil particles and suspended silt to watercourses which can then cause significant pollution of water. BSI Code of Practice for Earth Works, BS6031: 2009 is to be followed on site to prevent contamination.

7.2 Site drainage and surface run-off contaminated with silt will not be allowed to directly enter any watercourse; as such, appropriate sedimentation and silt mitigation measures will be implemented on site in order to treat contaminated waters. (e.g. Silt fencing).

7.3 A dry flood detention basin will be appropriately located towards the south-western part of the site, within close proximity to the foul and surface water connection with the existing drainage system at Caerleon Road which will naturally filter surface water run off before it reaches the adjacent brook. This will help to ensure water pollutants are removed from the water system before reaching adjacent natural water courses and provides the management of any silt or accidental spillages during the construction of the site and subsequent occupation.

7.4 Taking all of the above into consideration, it is noted that the identification of both general and site specific pollution prevention measures and the use of a dry flood detention basin as part of the Drainage Strategy will ensure that the impact of the development on the adjacent brook will be sufficiently mitigated and the activities associated with the construction of the site will have a negligible impact on the aquatic environment.