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Our ref: 680074 L01 SW
Application ref: 21/01822

4th March 2022

Planning Department
Dover District Council
White Cliffs Business Park
Dover
Kent
CT16 3PJ

Outline planning for the erection of up to 140 dwellings (including affordable housing) with public open space, landscaping and vehicular access point. All matters reserved except for access.

Site: 21/01822 – Land On The West Side Of, Cross Road, Deal, CT14 9LA

I refer to the consultation response from Southern Water relating to the above application. It is noted in this response that there are concerns over the protection of the chalk aquifer and drinking supply water.

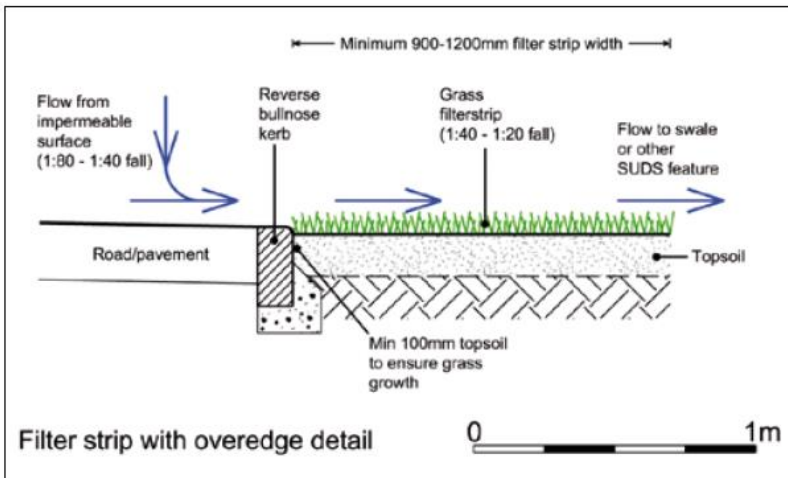
It is acknowledged that the aquifer is an important asset that requires additional mitigation to ensure pollutants are not mobilised and impacting on the water quality. For this reason the outline drainage strategy has recommended additional mitigation measures. These measures include the limiting of infiltration in the areas of the site designated as SPZ 1, the use of grassed swales to slow the flow of water and encourage settlement of pollutants, a lined settlement forebay prior to discharge to the infiltration basin as well as a mechanical separator in the form of an oil/silt interceptor prior to discharge to the area of infiltration. Whilst not included at this stage of the design, additional features such as filter strips along roadways and permeable driveways will further reduce the risk of pollutants entering the groundwater system.

Further details on the features are shown below:

Filter strips - Filter strips are grass or other densely vegetated strips of land that collect surface water runoff as sheet flow from impermeable surfaces.



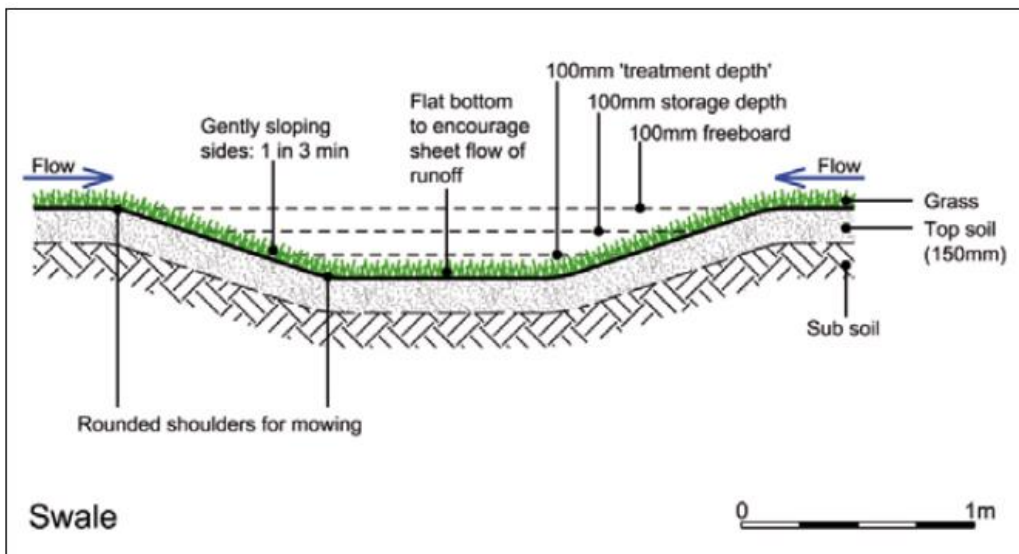
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Swales - Swales are linear vegetated channels with a flat base that encourage sheet flow of water through grass or other robust vegetation. They collect, convey and sometimes store surface water runoff allowing water to soak into the ground where soil conditions are suitable. Swales usually collect surface water runoff laterally across grass filter strips or over kerb edge inlets that reduce the rate of flow and allow suspended particles to settle in grassed areas. Surface water runoff can flow into swales through a point inlet but then requires erosion control and needs a silt collection arrangement if this has not been removed at source.

Shallow under-drained swales are useful in housing to collect surface water runoff at source and are normally dry grass channels that are visually acceptable to residents and can be used for informal play by children. They can be the first treatment stage before conveyance to the next part of the management train.

Conveyance swales are not usually underdrained and although normally dry can offer visual and habitat enhancement opportunities.

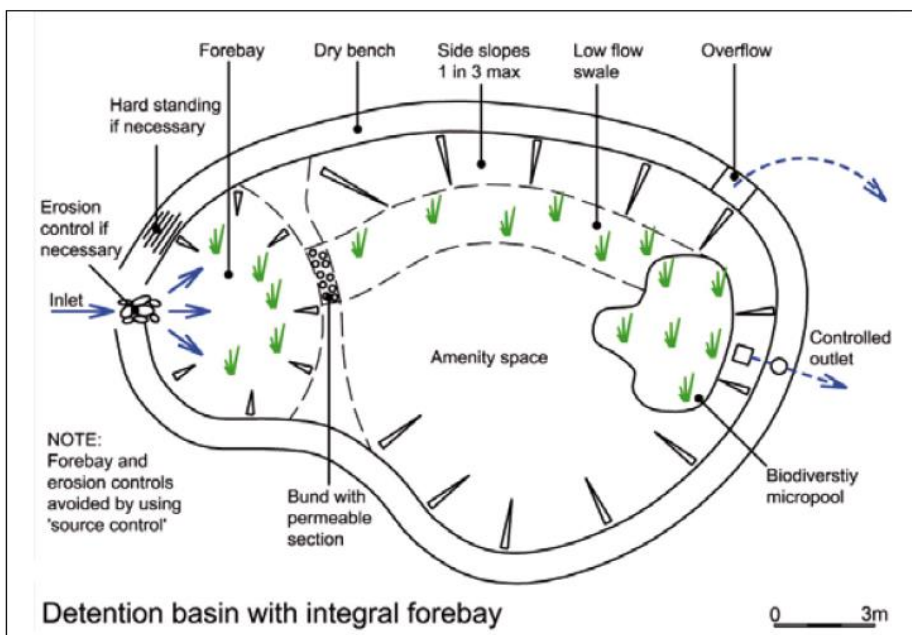


Permeable pavements - Permeable pavements provide a surface that is suitable for pedestrian or vehicle traffic while allowing surface water runoff to percolate directly through the surface into underlying open stone construction. Surface water runoff passing through permeable pavement leaves silt on or just below the surface but oils and other pollutants are trapped on geotextiles or in the stone construction for biodegradation by bacteria. Surface water runoff is stored in the construction before infiltration or controlled discharge to the management train.

The design of permeable pavements comprises a structural element for loading and a hydraulic consideration for water storage. Permeable pavement includes permeable block paving, porous asphalt, gravel surfaces and engineered grass surfaces.

Mechanical treatment - These can include oil interceptors, trap gullies and other silt traps and may form part of the drainage solution to remove possible pollutants from the highways.

Infiltration basins - Infiltration basins are vegetated depressions in the ground designed to store surface water runoff on the surface. They should be dry most of the time except in periods of heavy rain. Infiltration basins should be designed as landscape features that act as visual enhancement and habitat creation. When dry, they can be used for social space, and habitat creation.



The proposed features in isolation provide water quality treatment prior to discharge, however the outline drainage strategy seeks to utilise a number of these treatment trains, thus further reducing the likelihood of any pollutants leaving the site. The Flood Risk Assessment (680074 R1(01)-FRA) prepared for the application included a water quality assessment in line with Ciria guidance, this assessment concluded that, with the type of development proposed and the SuDS components used within the indicative surface water drainage strategy there is adequate pollution mitigation, with the mitigation score exceeding the pollution hazard level.

The Environment Agency has a statutory role to ensure hazardous substances are prevented from being released into groundwater and the input of non-hazardous pollutants is limited so as to not cause pollution.



The Environment Agency were formally consulted as part of the application and had no objections or comments on water quality (surface or ground) or other drainage related matters.

Subject to suitably worded planning condition, a detailed drainage design will form part of a full planning application with the details requiring confirmation from the relevant consultees prior to commencement on site. In addition to the above, a full construction management plan should be developed to manage runoff during the construction phase of the development. This should include suitable mitigation to ensure silts and other pollutants are managed on site and do not enter the groundwater system. It is recommended that this is secured through a pre-commencement planning condition.

Should you have any additional queries, please do not hesitate to contact the undersigned.

Yours sincerely,
For RSK LDE Limited

A handwritten signature in black ink, appearing to read 'C Whittingham', is written over a faint, light-colored signature line.

Colin Whittingham BSc (Hons) MSc MCIWEM C.WEM PIEMA
Associate Director