

- 5.6.9** The Construction Environmental Management Plan (CEMP) contains best management practices and site specific procedures and controls for environmental protection. The CEMP would be developed in consultation with the main contractor and agreed upon with the environmental regulators prior to the start of works.

5.7 Construction of Scheme and Enabling Works

Site Investigation

- 5.7.1** Site investigation would be undertaken to ensure the suitability of the area of the Proposed Development and inform construction methodologies and engineering requirements to allow adaptation of works to the local conditions.

Ground Investigation

- 5.7.2** Detailed ground investigation would be undertaken to determine existing structures the load bearing capacity of the ground; drainage capacity; existing contamination; and the suitability of materials for reuse
- 5.7.3** Preliminary ground investigation of the site has described the strata to generally consist of free draining gravel and sand, this permeability has potential implications for the design of sustainable drainage systems (SuDS), potential impacts on ground water and also the potential need for drainage to provide a well drained site for construction works. Further detailed discussion is provided below in Section 5.9 (SUDS strategy Section 5.4 and Hydrology and Supporting Documents, Water Quality Impact Assessment paragraph).

Contaminated Land

- 5.7.4** The area proposed for development is considered to be a greenfield site with a history of forestry and grazing on which the basis this assessment has determined that the risk of previous contamination is not significant and that no further contaminated land investigation is required.

Site Establishment

- 5.7.5** Site establishment as part of the enabling works would be undertaken at the outset of each construction phase, to establish site compounds with staff welfare facilities, temporary offices, car park areas and storage areas for plant and equipment. Storage of construction materials and waste may be within the individual compounds or established at a central location elsewhere on site. Outside of the compounds, construction phase SUDS, services, points of access and egress, site preparation works and environmental and pollution prevention controls would be established.

Site Compounds

- 5.7.6** It is likely that there would more than one site compound established at a time as several construction activities would be undertaken concurrently. Each site compound would be relocated throughout the development stages to allow

appropriate access to construction areas and roads. The particular location of site compounds would be determined closer to the time of construction.

Works during Wet Weather

- 5.7.7** Where practicable, earth works during wet weather or wet ground conditions would be avoided when the works are likely to cause soil degradation; carry a high risk of runoff to a watercourse; and/ or are located close to a water course.

Pollution Prevention

- 5.7.8** Construction works can have the potential to cause pollution, directly to the ground surface; by degrading local air quality; by excess noise and lighting and through runoff to watercourses. Forms of pollution from construction activities are most likely to result from fuel and oil leaks, spills from storage, plant and refilling practices; exhaust fumes from plant and transport vehicles; run-off from polluted materials and sediments from exposed earth, soil bunds and waste stockpiles; solid waste material which has been inappropriately located or has been washed or blown from stockpiles; noise from excess or poorly maintained plant and excess lighting from a number of sources.
- 5.7.9** Such potential pollution sources and events would be prevented, reduced, controlled and mitigated against with the implementation of the CEMP as discussed in the Volume 1, Chapter 8, Table 8.1. Guidance on pollution prevention is provided by the Pollution Prevention Guidelines and the SEPA document Prevention of Pollution from Civil Engineering Contracts: Special Requirements.

Site Clearance and Tree Removal

- 5.7.10** All construction work including site clearance would be following the guidance established in the CEMP which would be developed in collaboration with the developer and the contractor(s) for the Proposed Development.
- 5.7.11** Vegetation and tree removal if required would be undertaken at the site enabling stage for each phase following the approval by the planning authorities. It is anticipated that vegetation would be retained where practicable, particularly within the proposed open spaces as part of natural landscape.
- 5.7.12** All vegetation clearance on the Site would be undertaken outside the bird nesting season, with the removal of trees, patches of scrub, and grassland after the end of August and completed before the end of February. If any vegetation clearance was to be required outside this season, any such areas would be checked for nesting birds before clearance.
- 5.7.13** Habitat and species surveys and mitigation strategies are discussed in the Ecology chapter (see Volume 2, Chapter 9, Section 4) and would inform any site clearance activities.
- 5.7.14** There are currently no protected trees with Tree Protection Orders on the development site and therefore no Tree Removal Licence or Felling Licence from the Forestry Commission would be required. Trees would be removed

by competent staff complying with the health and safety regulations and guidance from the Forestry Commission Whole Tree Felling. Trees that would be retained on site would be protected and safeguarded according to the guidance provided in the BS5837:2005 Trees in relations to construction, and the CEMP.

5.7.15 The An Camas Mòr development would consider the option to adopt the sustainable practice of utilising felled trees as timber and reusing them in the development where suitable and practicable.

5.7.16 The Proposed Development would also consider the option to adopt the sustainable practice of composting vegetation and debris and using the compost where practicable, including on garden beds and in landscaping. All reuse and composting would be undertaken in accordance with the Waste Management Licensing Regulations 1994 (As Amended) and all other relevant legislation.

Temporary Drainage for Construction Activities

5.7.17 During construction, temporary localised lowering of ground water levels, i.e. temporary drainage, may be required at excavations. Typically, localised sumps and pumps would be utilised in favour of filter drains to lower the ground water level during specific periods.

5.7.18 The temporary drainage and discharge may require SEPA consultation and licensing dependent upon the quantities pumped, discharge points and the duration. The SEPA licensing and consultation would be undertaken prior to the construction works.

Temporary Construction Phase Sustainable Drainage System

5.7.19 The permeability of the strata is particularly suited to a Sustainable Drainage System (SuDS) which would direct rainfall and runoff from the development, during operation and construction, to percolate into the ground water rather than into surface water bodies.

5.7.20 The construction phase SuDs proposes utilisation of soakaways and infiltration trenches primarily to remove sediment entrained in runoff. Please refer to the SuDS strategy provided in Supporting Documents, ILUP Strategies Report for more details.

Concrete Washout

5.7.21 Concrete and cement is alkaline and can have an adverse effect on the environment, particularly if allowed to runoff into water courses or infiltrate to groundwater. As such, particular care and controls would be implemented for the storage, use and washing of cement, concrete and associated equipment and tools.

5.7.22 A designated concrete washout would collect wash water within an impervious container and allow the liquid to evaporate while the concrete sets

in the container. This concrete can be recycled as hardcore or disposed of as solid waste.

5.7.23 Tankers which provide ready-mix concrete to the site may require washing out on site, in which the same conditions of no spill and no runoff must be met. The risk of a pollution event is more easily avoided if there would be no washing out of concrete trucks on site, however this would require consultation with the ready-mix provider.

5.7.24 Further detail on good practice for concrete washout is provided by the Pollution Prevention Guidelines PPG: 6 and the SEPA guidance Prevention of Pollution from Civil Engineering Contracts: Special Requirements.

Storage

5.7.25 Storage would be required for machinery, building materials, fuels and chemicals, waste and excavated materials/soil, felled trees and vegetation debris.

5.7.26 Good practice and environmental management for storage should prevent loss or damage of materials caused by vandalism or weather; spills of pollutants; erosion or sediment runoff. Good practice guidelines are provided in the Pollution Prevention Guidelines (PPG) 6 and PPG2 and Prevention of Pollution from Civil Engineering Contracts Guidelines for Special Requirements (SG-32) SEPA 2006. These documents, in conjunction with information in this ES, should be used to inform the CEMP and preparation for works. Regular checks and reporting of non-compliance with the CEMP during the construction would be undertaken as part of the CEMP programme.

5.7.27 Storage areas, particularly for high risk pollutants such as chemicals and fuels, would be made secure to prevent vandalism, as a pollution event which occurs as the result of vandalism may still be considered the responsibility of the developer or contractor.

5.7.28 Storage locations would be selected to ensure that short or long term storage would not cause degradation to flora, fauna, peat or incorporate a high risk of pollution to the ground or watercourses.

Storage of chemicals, fuel and oil

5.7.29 Fuel, oil and chemicals should be stored in double-bunded containers or on an impervious base within an impervious bund that can hold 110% capacity of the container. Any rainfall caught in a bund must be evaporated or disposed of as liquid waste; it cannot be disposed off to site as it is likely to contain contaminants. Detailed planning should take consideration of the guidelines previously listed.

Storage of Waste

5.7.30 All storage of waste would be undertaken in accordance with the Environmental Protection Act 1990 (as amended) and the Waste Management Licensing Regulations 1994 (as amended) which sets controls