



**Scottish
Water**
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23 August 2017

Marine Scotland

SCOTTISH WATER

The Bridge
Buchanan Gate Business Park
Cumbernauld Road
Stepps
G33 6FB

www.scottishwater.co.uk
EIA@scottishwater.co.uk

By email to: ms.marinelicensing@gov.scot

Dear Sirs,

Clyde Waterfront Renfrew Riverside (CWRR) project – Renfrewshire Council (per Sweco) – Construction of Moving Bridge over River Clyde and Capital Dredging

Thank you for consulting with Scottish Water regarding the above proposed development.

Drinking Water Protected Areas

A review of our records indicates that there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed development.

Scottish Water Assets

A review of our records indicates that there are multiple asset within the site including a 24” cast iron water main and two rising mains (a 900mm ductile iron combined rising main and a 600mm cast iron combined rising main).

The location of Scottish Water assets (including water supply and sewer pipes, water and waste treatment works etc.) should be confirmed through obtaining detailed plans from our Asset Plan Providers. Details of our Asset Plan Providers are included in Annex 1.

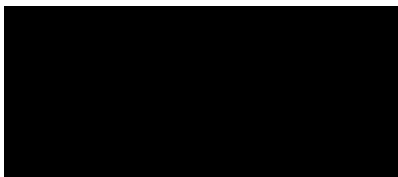
All Scottish Water assets potentially affected by the development should be identified, with particular consideration being given to access roads and pipe crossings. If necessary, local Scottish Water personnel may be able to visit the site to offer advice. All of Scottish Water’s processes, standards and policies in relation to dealing with asset conflicts must be complied with.

In the event that asset conflicts are identified then early contact should be made with the Scottish Water Asset Impact Team (AIT) at **service.relocation@scottishwater.co.uk**. All detailed design proposals relating to the protection of Scottish Water’s assets should be submitted to the AIT for review and written acceptance. Works should not take place on site without prior written acceptance by Scottish Water.

Annex 1 includes a list of precautions to be taken when working within the vicinity of Scottish Water assets. This list of precautions is not exhaustive but should be taken into account as the development progresses through the planning and development process.

If you have any questions relating to the above, or in relation to the information presented in Annex 1, please do not hesitate to contact me.

Yours faithfully,



Redacted

EIA@scottishwater.co.uk

Annex 1: Precautions to protect drinking water and Scottish Water assets during development activities

General requirements

1. The proposed timing of the works, including planned start and completion dates, should be submitted to Scottish Water in advance of any activities taking place on-site. This information should be submitted to **EIA@scottishwater.co.uk**.
2. If a connection to the water or waste water network is required, a separate application must be made to the Scottish Water Development Operations Team for permission to connect. It is important to note that the granting of planning consent does not guarantee a connection to Scottish Water assets. The Development Operations Team can be contacted by telephone on **0800 389 0379** or via email at **developmentoperations@scottishwater.co.uk**.
3. In the event of an incident occurring that could affect Scottish Water we should be notified without delay using the Customer Helpline number **0800 0778 778** and the local contact if known.

Protecting drinking water quality

Regulatory requirements

4. Scottish Water is required to ensure that any activity within a drinking water catchment does not affect the ability of Scottish Water to meet its regulatory requirements.
5. Water Treatment Works are designed to treat the specific parameters of the raw water source they receive (i.e. the specific chemical, biological and other characteristics of natural, untreated water). If the characteristics of the raw water change or deteriorate, it can affect the ability of the works to supply drinking water to customers at the required standards.
6. The regulations relating to the quality of drinking water supplied by Scottish Water are the Water Supply (Water Quality) (Scotland) Regulations 2001. Quality Standards are derived from the European Drinking Water Directive 98/83/EC.
7. Drinking water catchments feed Scottish Water abstractions which supply water to water treatment works. Under Article 7 of the Water Framework Directive, waters used for the abstraction of drinking water are designated as Drinking Water Protected Areas (DWPA). The objective of the Water Framework Directive is to ensure that no activity results in the deterioration of waters within the DWPA. If an activity falls within a DWPA or drinking water catchment, it is essential that water quality and quantity are protected

Specific precautions for drinking water protection

8. A detailed, site specific Construction Method Statement including e.g. Construction Environmental Management Plan, Risk Assessment, Pollution Prevention and Contingency Plan must be submitted to Scottish Water at least three months prior to the works commencing. This should be agreed with Scottish Water prior to any operations taking place. Any other associated documents (e.g. Drainage Plan, Peat Management Plan etc.) should also be submitted and agreed with Scottish Water at least three months prior to works commencing. In the first instance, this information should be supplied to **EIA@scottishwater.co.uk**.
9. Where possible, infrastructure and activities should be located outside of the drinking water catchment. If this can be demonstrated to be impracticable then all infrastructure and activities should be located 50m from any watercourse where possible, and a minimum of 10m distant where 50m can be demonstrated to be undeliverable. This does not apply to infrastructure or activities associated with the watercourse, for example, surface water discharge points, watercourse crossings, etc.
10. Any potential effect on the hydrology of the area resulting from the construction and operation of the proposed development should be assessed and the findings presented in the Environmental Statement or environmental appraisal accompanying the planning application. This should include consideration of natural drainage patterns, base flows/volume, retention/run-off rates and potential changes to water quantity. Any required mitigation measures and proposed monitoring should also be detailed in the Environmental Statement or environmental appraisal accompanying the planning application.
11. When constructing roads, drainage ditches and trenches, drainage should not be directed into adjacent catchments but retained within the existing catchment.
12. Any potential pollution risk which could affect water quality should be considered and mitigation measures implemented to prevent deterioration in water quality and pollution incidents. This includes sediment run-off, soil or peat erosion, management of chemicals and oils, etc. (see also point 16 below). This should be considered for operations at all stages of development including pre- and post-construction.

13. Mitigation measures to prevent pollution to watercourses should be outlined in the Environmental Statement or environmental appraisal accompanying the planning application, and adopted in the Construction Method Statement/Construction Environmental Management Plan prior to work starting onsite. Any measures implemented should be regularly checked, maintained and improved if pollution occurs.
14. Watercourses that feed into any watercourses or reservoirs that Scottish Water abstracts from should be considered when developing new road or access infrastructure. Any crossing of these watercourses should be kept to a minimum. Pollution prevention measures should be put in place at each crossing point and silt traps, or equivalent, should be installed at regular intervals to minimise the risk from pollution.
15. Once constructed, site roads and access routes should be regularly maintained to ensure minimal erosion, and hence run-off and pollution, from the road surface. Site roads should be constructed from inert, non-metalliferous material, with low erodibility and low sulphide content.
16. No refuelling or storage of fuel or hazardous materials should take place within the drinking water catchment area. If this can be demonstrated to be impracticable, then the appropriate Scottish Environment Protection Agency (SEPA) Pollution Prevention Guidelines (PPG 2: Above ground oil storage, PPG 6: Working and Construction and Demolition Sites, PPG 8: Safe storage and disposal of fuel oils, PPG 21: Pollution incident response planning and PPG 22: Incident response – dealing with spills) should be followed. Where possible, 50m buffers should be applied to all surface watercourses, groundwater borehole abstraction points and springs. Oil storage should be in accordance with The Water Environment (Oil Storage) Regulations (Scotland) 2006. There should be dedicated oil storage areas created. Spill kits should be located within all vehicles, plant and high risk areas.
17. Waste storage, concrete preparation and all washout areas should not be within the drinking water catchment area. If this can be demonstrated to be impracticable then this should be in dedicated areas 50m from a watercourse where possible and should be designed to be contained and to prevent escape of materials/run-off to the environment.
18. Welfare/waste water facilities should preferably be located outside the drinking water catchment. If not practicable, then portable toilets should be used and waste disposed of off-site. Alternatively secondary treatment and soakaways should be used and, if required, a sampling chamber installed and sampling programme agreed. The proposed method of managing welfare and waste water facilities should be detailed in the Environmental Statement or environmental appraisal accompanying the planning application. If sampling is required, Scottish Water should be contacted via **EIA@scottishwater.co.uk** in the first instance.
19. Any proposed abstractions for activities such as welfare facilities or cement batching plants should be detailed in the Environmental Statement or environmental appraisal accompanying the planning application.
20. Induction training should be given to all personnel on-site and should include Scottish Water site sensitivities in relation to drinking water catchments and assets (see below), as well as spill response as outlined in PPG 22: Dealing with spills.
21. Construction and Environmental Management Plans, Pollution Prevention and Contingency Plan and associated documents should include the Scottish Water Customer Helpline Number **0800 0778 778** and the local contact details.

Protecting drinking water in peatland areas

22. When peat is present within the proposed area of activity the Environmental Statement or environmental appraisal accompanying the planning application should include an assessment on the potential release of colour and dissolved organic carbon quality as a result of changes to hydrology and/or physical disturbance. This should cover the construction and post construction phases.
23. Excavations and ground disturbance in areas of deep peat should be avoided. Deep peat is considered to be peat greater than 0.5m deep.
24. The natural hydrology within peat should be maintained and/or restored. Any necessary measures to maintain natural drainage of peat and sub-surface hydrology, such as tailored drain spacing on access tracks, should be implemented as part of the design of the development.
25. Scottish Water requests that, where possible, access tracks in the drinking water catchment are constructed as floating tracks with adequate provision for maintaining existing drainage patterns.
26. Exposed soils and peat can release sediment, colour and dissolved organic carbon. The use of geotextiles, turf replacement and/or reseeded, should be undertaken as soon as possible.
27. Restoration of any degraded peat should be considered for areas within the drinking water catchment.

Protecting drinking water due to forestry activity

28. An assessment of any forestry activity, including felling, planting or other activity, likely to affect the drinking water catchment should be included in the Environmental Statement or environmental appraisal accompanying the planning application. Any specific mitigation measures should be identified and incorporated into the Construction Environmental Management Plan for the site prior to works commencing.
29. The Environmental Statement or environmental appraisal accompanying the planning application should include details on the harvesting/clearance process for any felling/woodland removal. The least disturbing method/s should be selected where possible.
30. Any historic drains and ditches within the site boundary that discharge directly to a watercourse in the drinking water catchment, these should be blocked and slowly discharged to a buffer area in line with current Forestry Commission Forest and Water Guidelines. Where possible, this should be undertaken in advance of any work being carried out on site, to provide protection for watercourses during site activities.

Monitoring requirements to protect drinking water quality

31. During construction, a programme of daily visual inspection of the watercourses, flow conditions (i.e. high, medium, low, or no flow), prevailing weather and any other pertinent observations, will be required to be implemented. The results should be recorded and the information submitted to Scottish Water (i.e. in a monthly progress report). This should be undertaken when water quality samples are taken. In the first instance proposals for monitoring should be provided to **EIA@scottishwater.co.uk**.
32. Depending on the vulnerability of the public water supply, Scottish Water may request that a water sampling programme shall be established and agreed with Scottish Water. This should assess the baseline water quality for a minimum of one year prior to any activities commencing on-site where possible, including ground investigations and any felling activities, to allow an accurate understanding of baseline conditions at the site. Water sampling should continue during construction and then post-construction for a minimum of one year. Following completion of one year of sampling post-construction, this should be reviewed to determine whether this should continue for a further agreed period. The parameters, frequency and sampling locations will also need to be agreed with Scottish Water. This monitoring will establish if any decline in water quality can be attributed to the development. It may also be necessary to establish trigger levels to determine when any potential issues should be reported to Scottish Water.
33. The appointed Contractor/Site Foreman or Ecological or Environmental Clerk of Works should have relevant knowledge and experience to provide advice and monitor compliance with measures for the protection of water quality in relation to abstractions for water supply.
34. Depending on the vulnerability of the public water supply, Scottish Water may request that a dedicated Environmental Manager be appointed and present on-site to assess and monitor any effects caused by the development.

Guidance documents

35. Please ensure that appropriate Guidance Documents are followed:
 - Floating Roads on Peat. Forestry Civil Engineering and SNH. (August 2010).
 - Planning Advice Note 61: Planning and Sustainable Urban Drainage Systems. Scottish Government (2001)
 - Planning Advice Note 79: Water and Drainage. Scottish Government (2007).
 - Water Assessment and Drainage Guide, SUDS Working Party (2016).
 - Sewers for Scotland 3rd Edition, Scottish Water (2015)
 - Water for Scotland 3rd Edition, Scottish Water (2015)..
 - Forests and water UK Forestry Standard Guidelines, 5th Edition. Forestry Commission (2011).
 - General Binding Rules under the Controlled Activities Regulations (see The Water Environment (Controlled Activities) Scotland Regulations (as amended) A Practical Guide, Version 7.2, SEPA (March 2015)).
 - SEPA Pollution Prevention Guidance (<http://www.sepa.org.uk/regulations/water/guidance/>).

Protecting Scottish Water assets

36. If an activity associated with a development proposal is located within close proximity to Scottish Water assets, including water and waste water pipe infrastructure, treatment works and reservoirs etc., it is essential that these assets are protected from damage. To this end, the developer will be required to comply with Scottish Water's current process, guidance, standards and policies in relation to such matters.
37. Copies of Scottish Water's relevant record drawings can be obtained from the undernoted Asset Plan Providers. This is distinct from the right to seek access to and inspect apparatus plans at Scottish Waters area offices, for which no charge is applied.

Site Investigation Services (UK) Ltd

Tel: 0333 123 1223
Email: sw@sisplan.co.uk
www.sisplan.co.uk

National One-Call

Tel: 0844 800 9957
Email: swplans@national-one-call.co.uk
www.national-one-call.co.uk/swplans

Cornerstone Projects Ltd

Tel: 0151 632 5142
Email: enquiries@cornerstoneprojects.co.uk
<http://www.cornerstoneprojects.co.uk/index.php/scottishwaterplans>

38. It should be noted that the site plans obtained via the Asset Plan providers are indicative and their accuracy cannot be relied upon. It is therefore recommended that the developer contacts the **Scottish Water Asset Impact Team** at service.relocation@scottishwater.co.uk for further advice if assets are shown to be located in the vicinity of the proposed development, and where the exact location and the nature of the infrastructure shown could be a key consideration for the proposed development. An appropriate site investigation may be required to confirm the actual position of assets in the ground. Scottish Water will not be liable for any loss, damage or costs caused by relying upon plans or from carrying out any such site investigation.
39. Prior to any activity commencing, all known Scottish Water assets should be identified, located and marked-out.
40. Scottish Water expects method statements, safe systems of work and risk assessments to be prepared and submitted in advance to Scottish Water for formal review and acceptance. These documents shall consider and outline in detail how existing Scottish Water assets are to be protected and/or managed for the duration of any construction works and during operation of the development if relevant. These documents must be submitted to Scottish Water's Asset Impact team for formal prior written acceptance.
41. The developer shall obtain written acceptance from Scottish Water's Asset Impact Team where any site activities are intended to take place in the vicinity of Scottish Water's assets. The Asset Impact Team can advise on any potential risk mitigation measures that may be required.
42. Scottish Water and its representatives shall be allowed access to Scottish Water assets at all times for inspection, maintenance and repair. This will also ensure that the Scottish Water assets are protected and that any Scottish Water requirements are being observed.
43. Any obstruction or hindrance of access to Scottish Water assets should be avoided. The prompt and efficient use and manipulation of valves, hydrants, meters or other apparatus is required at all times. There should also be no interference with the free discharge from water main scours or sewer overflows.
44. In the event of an incident occurring that could affect Scottish Water, including any damage to assets, Scottish Water should be notified without delay, using the Customer Helpline number **0800 0778 778**, and the local contact if known. Scottish Water apparatus should not be interfered with or operated by anyone other than Scottish Water personnel.
45. The 'offset distance' is the distance between any Scottish Water asset and adjacent properties and structures. Scottish Water reserves the right to ask for an offset distance in accordance with its own current policy and standards and to suit specific circumstances. The details of this requirement should be confirmed with Scottish Water as an early part of the design process.
46. Stationary plant, equipment, scaffolding, construction or excavated material, etc. should not be placed over, or close to, any Scottish Water assets without the prior written consent of Scottish Water which may be withheld depending on circumstances on-site.

47. Special care should be taken to avoid the burying of Scottish Water assets or the obstruction of sewers or manholes with fill or other material. Arrangements for altering the level of any chambers should be agreed in advance with Scottish Water and these should be constructed in accordance with Scottish Water requirements. The cost of any work to Scottish Water assets will be met by the project developer.
48. Excavation works (e.g. of wind turbine foundations) should not be carried out in the proximity of a water or waste water main without due notice having been given to Scottish Water and prior written acceptance obtained. The developer will comply fully with any Scottish Water specific site requirements.
49. Any tree planting associated with the development (e.g. compensatory planting or screening etc.) should be undertaken in line with Water for Scotland 3rd Edition (April 2015) to ensure that Scottish Water assets are not put at risk by future growth of tree roots.
50. Vibration in close proximity to Scottish Water pipelines or ancillary apparatus should be managed in accordance with British Standard 5228-1:2009 (Code of practice for noise and vibration control on construction and open sites). The predicted levels of vibration should be agreed in advance with Scottish Water as part of the risk assessment and method statement and agreed vibration monitoring arrangements will be required.
51. The developer will consider the possibility of increased loading on Scottish Water apparatus and measures will be taken to eliminate or mitigate increased loading on assets. Care should be taken to identify any assets which may be crossed by vehicles on the access route to the site and crossing points will be engineered to the requirements of Scottish Water. Any pipe crossing proposals are subject to prior written acceptance by Scottish Water.
52. Scottish Water will not accept liability for any costs incurred in fulfilling any of the above requirements during the development planning, construction or operational phases, either by the developer, the developer's associates, contractors or any other person or organisation involved in the project.
53. If the developer damages any Scottish Water asset they will be held liable for any costs resulting from this.
54. Scottish Water may require costs associated with the development to be reimbursed by the developer or the developer's agents.