Scottish & Southern Electricity Networks

TRANSMISSION

Scottish Hydro Electric Transmission plc

Beauly-Denny Overhead Line Diversion

Environmental Appraisal

Technical Appendices

Appendix A – General Environmental Management Plan (GEMP) - Private Water Supplies

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1 Introduction

1.1 Many construction works, including site investigation works, have the potential to impact on private water supplies (PWS). This can be through either disturbing drainage patterns (horizontally or vertically) or impacting on the quality of the water source. There is also the potential to impact on infrastructure of PWS, with pipes and tanks possibly omitted from service plans.

1.2 Damaging a PWS can have impacts on the health of the users, as well as severe financial and reputational impacts.

1.3 It is required to comply with the following in addition to any specific measures identified associated with the site.

2 General Compliance Requirements

2.1 Pre-construction

2.1.1 Review any consent requirement for delivering the works and undertake all required actions in relation to PWS.

2.1.2 All PWS located within 250 m of the proposed works must be identified prior to commencement of any works.

2.1.3 A risk assessment should be undertaken to identify those PWS that have the potential to be affected by the works including consideration of:

- Type and depth of water supply source (e.g. borehole, spring or surface water abstraction);
- Catchment area;
- Nature of proposed works (e.g. depth and extent of any proposed excavations, potential for pollution incidents / spillage, etc.); and
- Proximity of works to PWS and related topography of area

2.1.4 Should the results of this assessment indicate a risk to the PWS, then mitigation shall be developed for inclusion in a site specific PWS Protection Plan that is discussed and agreed with the PWS owner.

2.1.5 In certain circumstances it may be appropriate to undertake water quality testing of the source or supply, to establish a baseline of current water levels and quality. It may be required to collect baseline water quality monitoring throughout the year to establish any seasonal fluctuations in existing quality and production of the source. Baseline water quality (and potentially production capacity) monitoring should be agreed as part of the PWS protection plan.

2.1.6 Prepare a contingency plan to deliver an alternative water supply (on a temporary or permanent basis) in the event of an unforeseen problem with the existing supply. This may include ensuring provisions of bottled water, IBCs of potable water, fresh water bowers, replacement lengths of suitable piping and fittings to match existing infrastructure area available on site.

2.2 Construction

2.2.1 PWS requiring protection will have specific mitigation developed. Mitigation may include some / all of the following:

- Fence off the PWS intake (to avoid accidental damage and to deter animals) and identify relevant buffer distances;
- Installation of silt mitigation to prevent runoff from works areas entering the PWS. Use a precautionary approach as not all flow pathways may be immediately obvious;
- Avoid undertaking works within PWS catchments during wet weather or when wet weather is forecast as there will be increased surface water flows into the PWS which will be harder to control;
- Use low impact access methodologies including the use of track panels where access to works are within the PWS catchment;
- Survey and peg out the route of the distribution main in the vicinity of the construction works and avoid / minimise activity within this area; and
- Ensure all site operatives working in the area are made aware of the location of the PWS and catchment area, and mitigation measures required through toolbox talks or similar
- Signage should be considered to remind workers when works take place in these areas

2.2.2 Put in place measures to protect PWS distribution mains where they cross beneath roads / access tracks. These might include:

- Setting the existing pipe work within mass concrete;
- Upgrading or rerouting the existing pipe work;
- Ensuring that there are adequate pollution control and emergency response measures in place to deal with any accidents that could affect a water supply (e.g. spill response or sediment control);
- Implementation of regular, recorded checks on any pipework (visible signs of cracking or other damage); and
- Provision of an alternative supply (temporary / permanent), e.g. taking a surface water abstraction to a point above the works to prevent potential downstream contamination from works impacting upon the supply. (Ensure appropriate landowner agreement and CAR consent is in place.)

2.2.3 Undertake regular health, safety and environment briefings to construction staff. Include information on:

- Presence and importance of water supply intake and distribution main nearby;
- Need to protect these from accidental damage;
- Need to act promptly if an accidental spill or pollution incident poses a threat; and
- Reporting requirements

2.2.4 Regularly monitor works and their impact on the PWS, ensuring appropriate mitigation is in place. Keep records of inspections and mitigation maintenance/ improvements. If the PWS is being impacted or has the potential to be impacted, stop those activities and seek specialist advice.

2.3 Unidentified Water Supplies

2.3.1 It is possible that previously unidentified PWS may be found during works.

2.3.2 If this happens, stop work in that location and seek specialist advice.

2.3.3 Necessary protection measures will need to be identified in consultation with the PWS owner, landowner, specialists and relevant authorities and implemented before work should resume in that location.

3 Revision History

No	Overview of Amendments	Previous Document	Revision	Authorisation
01	New Document Created	N/A	1.00	Richard Baldwin
02	Document reviewed and updated	TG-NET-ENV-518 General Environmental Management Plan (GEMP) – Private Water Supplies (Rev 1.00)	1.01	Richard Baldwin
03				