

KERRY COUNTY COUNCIL



ENVIRONMENT SECTION

EPA CODE OF PRACTICE (2009)

REQUIRED SUPPORTING INFORMATION &
DOCUMENTATION.

TO BE SUBMITTED WITH SITE ASSESSMENTS

DOCUMENT REF: SAU / 06 / 10

A complete site assessment is required for each on-site wastewater treatment system proposed.

2.0 GENERAL DETAILS

The following maps (*available f.o.c. from the from GSI /EPA Envision / Teagasc websites*) are required

–

- Soil Map with the site location clearly marked.
- Subsoil Map with the site location clearly marked.
- Aquifer Category Map with the site location clearly marked.
- Vulnerability Map with the site location clearly marked.
- Bedrock Map with the site location clearly marked.
- Wells Map with the site location clearly marked.

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment

- A map (1:2500 OSI map) showing all relevant surface features within 250 meter radius of the site is required.
Relevant surface features include –
 - dwellings and effluent treatment systems;
 - wells,
 - surface water soakaways;
 - watercourses & streams;
 - open drains & drainage ditches;
 - heritage features e.g. N.H.A. / S.A.C.;
 - lake or foreshore;
 - site boundaries;
 - trees;
 - roads,
 - slope breaks and / or cuts;
 - wetlands;
 - springs;
 - beaches / shellfish areas;
 - lakes;
 - karst features
- Colour photographs of the site relative to the landscape.
- Colour photographs of soil or rock outcrops (if any) noted in Site Characterisation Form.
- Colour photographs of existing systems on-site (if any).
- All Colour photographs are to be annotated, referencing them to the submitted Site Suitability Report.

3.2 Trial Hole

For health and safety reasons Kerry County Council do not require that trial holes remain open until inspected by the Environment Department.

As a consequence a comprehensive set of colour photographs with date stamp (where possible) must be submitted in support of this section of the site assessment.

- At least eight colour photographs per excavated trial hole(s) must be submitted. These should show:
 - Full profile of the trial hole(s)
 - A photograph of the face of the trial hole with which the submitted trial hole log refers to.
 - A levelling staff (fully extended) showing the trial hole depth. The photographs should show the levelling staff from a distance and also in close up so that the numbers of the levelling staff are legible.
 - Colour photograph(s) of the excavated trial hole relevant to the site.
 - Colour photograph(s) of the trial hole spoil heap.
 - Any other colour photographs which confirm the veracity of the trial hole log.
- Colour photographs of mottling / water table / bedrock encountered along with a levelling staff showing the depth below ground level.
- Colour photographs of thread and ribbons tests. These are to be annotated relative the soil horizons noted in the trial hole log.
- Where, for example, the subsoil is described as GRAVEL, colour photographs supporting the soil classification must be provided.
- BS 5930 descriptions must be used to describe subsoil e.g. GRAVEL, SAND, SILT, SILT / CLAY, etc. Please note use of CAPITALS.

3.3 (a) Percolation “T” Test for Deep Subsoils and/or Water Table

Colour photographs with time and date stamp (where possible) must be submitted in support of the percolation tests.

- Colour photographs of “T” tests hole these should contain
 - A measuring tape (or equivalent) showing the dimensions of the “T” test hole.
 - Levelling staff (or equivalent) showing the depth from ground surface of “T” test hole.
 - Each fill of 100mm should be photographed and submitted, suitably annotated in support of Section 3.3(a) of the Site Characterisation Form.
- Colour photographs of the locations of the “T” test holes on the site.

3.3 (b) Percolation “P” Test for Shallow Soils/Subsoils and/or Water Table

Colour photographs with time and date stamp (where possible) must be submitted in support of the percolation tests.

- Colour photographs of “P” tests hole these should include.
 - A measuring tape (or equivalent) showing the dimensions of the “P” test hole.
 - Each fill of 100mm should be photographed and submitted, suitably annotated in support of Section 3.3(b) of the Site Characterisation Form.
- Colour photographs of the locations of the “P” tests holes on the site.

3.4 Drawings

General

- Discovery Series Map (1:50,000) showing the groundwater flow direction.

Site Layout

- Site Layout Map should be at a scale of 1:500 and should show –
 - Measurements to trial hole location(s) and percolation test hole location(s);
 - Distances from all relevant features (ref 3.1);
 - All existing and proposed wells within 250 metres radius, separation distances are to be noted.
 - All springs within 250 metres radius;
 - Direction of groundwater flow;
 - Contours & spot levels on and adjacent to the site, along with the proposed finished floor level for the proposed dwelling;
 - In particular spot levels around the proposed soil polishing filter / percolation area are required;
 - Proposed house and effluent treatment system;
 - All separation distances for the proposed wastewater treatment system (i.e. separation distances to ditches, boundaries, roads, dwellings etc.);
 - Adjacent houses within 250 metres radius;
 - North point.

Construction Drawings

- Plan of the irrigation area (*1:50 scale preferred, 1:100 scale the minimum acceptable*).

The Plan must clearly show

- The distribution pipe network / percolation trenches layout;
- The centre to centre measurements between the distribution pipe network / percolation trenches;
- A central manifold (if proposed);
- The buffer zone around the irrigation area;
- Percolation trenches joined and vented;
- The trial hole location.

Construction Drawings *(continued)*

- Longitudinal and Cross Sections through the proposed wastewater treatment system (*1:50 scale preferred, 1:100 scale the minimum acceptable*).

The Section drawings must clearly show

- the invert level of the percolation trench / polishing filter;
- the original ground levels (*Please note that as the site is not exactly flat or level, the cross sections required should accurately show the existing ground levels on site*);
- the extent of any replacement or addition to the in-situ soils on site;
- the depth of excavated trial hole(s);
- the outline of the trial hole(s) should be superimposed on all cross sections;
- the top level of the aquifer being protected (*i.e. level at which bedrock / water table / seasonal water table [as indicated by mottling] is encountered, or if not encountered the level of the base of the trial hole*);
- the depth of unsaturated subsoil;

Please note that

- If possible, the plan, longitudinal section(s), and a cross-section(s) should be submitted on one drawing.
- All the various elements of the effluent treatment system (*septic tank / mechanical aeration unit, distribution boxes, percolation area / polishing filter etc.*) should be shown on all sections and on plan.
- a cross section in both directions through the percolation area / polishing filter is required;

- If distribution boxes (and / or associated stilling chambers, flow splitting chambers) plans and sections of the distribution boxes are required.

The material of construction should also be noted.

Reinforced concrete is the only acceptable construction material for in-situ distribution boxes. Proprietary distribution boxes (of plastic or reinforced concrete construction, for example) are also acceptable.

The assessor should clearly outline the type of distribution box recommended.

5.0 Recommendations

- Please see Section 6.6 (Page 18) of the Code of Practice.

OTHER

- If a pumped discharge soil polishing filter is proposed a site specific design must be included with the site assessment. The design must be prepared by a suitably qualified hydraulic engineer / mechanical engineer and the scope of the design must be agreed with the Site Assessment Unit in advance.

- If mechanical aeration unit is proposed the mechanical aeration unit must have appropriate certification.
Section 9, Page 37 of the E.P.A. Code of Practice reads
Where such products are used they should conform to the relevant Part of the EN 12566 series of standards. prEN 12566-6 and prEN 12566-7 are in preparation and will deal with the performance characteristics of prefabricated filters. Where the relevant part of EN 12566 is not yet available, products should be certified (certification may include a European Technical Approval, an Agrément Certificate or equivalent), be fit for the purpose for which they are intended, the conditions in which they are used and meet the performance requirements of this CoP.

- The Site Characterisation Form must be signed by the site assessor. All drawings accompanying the Site Characterisation Form (*and thus forming part of the site assessment*) must bear either a title block with the site assessors name (*& where appropriate the assessors company logo*) or otherwise be endorsed in writing by the site assessor.
This is taken as confirming that the Site Characterisation Form and accompanying drawings are consistent, and that the Site Characterisation Form and accompanying drawings accurately represent the proposed solution for the site.