Land Capability Assessment Detailed Information Checklist



31 MARCH 2016

The following is a checklist of information that must form part of a Land Capability Assessment report submitted to Council with planning permit applications for dwellings in the bushfire affected areas of Wye River and Separation Creek.

Report Element	Detailed Requirements	Completed
1. Introduction and Background	Report summary/ executive summary.	
	Confirmation of Sensitivity Rating.	
	Confirmation of any relevant sensitivity overlays (e.g. landslip) as per communications with Council.	
	Confirmation that property/parcel(s) meets minimum lot size criteria for COS Planning Scheme Zone.	
	Current land use and development overview (including occupancy); single property/parcel, increase in building entitlements (subdivision) or non-domestic development.	
	Name, contact details and qualifications (insurances) of LCA assessor (author).	
	Site location (including address and property/parcel details) and owner.	
	Property/parcel area.	
	Proposed/existing water supply.	
	Locality map showing the site in relation to surrounding region.	
	Site survey plan will need to be conducted by a qualified surveyor.	
	Gather information on relevant Council, Water Corporation, Catchment Management Authority and State Government requirements, including restrictions and caveats on title, and planning/building/bushfire/flood controls, e.g. zones and overlays. Impose this information on a base map (or site plan) which shows their location with respect to title boundaries.	
2. Site Inspection and Field Investigations	Broad overview of locality and landscape characteristics that may pose a constraint to the sustainable application of wastewater on the Site and adjacent land, e.g. climatic information, groundwater and bore water information. (Refer to stage 3 pp.34 EPA Code of Practice (2013)).	
	Details of date, time and methodology of site inspection and field investigations.	
	Site assessment that considers all of the parameters as per Table 1 of the Victorian LCA Framework (2014). Detailed explanation of the level of constraint with regards to DWM and recommended mitigation measures to overcome these constraints.	
	Minimum of two soil test pits or auger holes within the identified available effluent management area with additional test pits required for more than one soil type (multiple soil landscapes or facets) as per the current EPA Code of Practice.	







	Soil assessment that considers all of the parameters in Table 2 of the Victorian LCA Framework (2014): • colour and mottling; • electrical conductivity; • Emerson Aggregate Class; • permeability and design loading rate (using soil texture); • pH; • rock fragments; • soil depth; • soil texture (field textural analysis); • watertable (depth to); • cation exchange capacity (CEC); • sodicity (Exchangeable Sodium Percentage ESP); and • Sodium Absorption Ratio (SAR). Detailed explanation of the level of constraint with regards to DWM and recommended mitigation measures to overcome these constraints. Soil permeability testing conducted in situ for the soil within the available effluent management area as per constant head well permeameter method (AS/NZS 1547:2012) can be undertaken if desired, otherwise soil texture classification and application of effluent using the loading rates within the AS/NZS 1547:2012 is satisfactory.	
	Detailed review of available published soils information for the site. Soil landscapes and different soil facets should be mapped on the Site Plan.	
	Calculation of available effluent management area and location on Site Plan.	
3. Available Area and Setback Distances	Discussion regarding the achievability of the applicable setback distances (Table 5 of the EPA Code of Practice (2013)). Justification required.	
	Confirm the results from Stages 1-3 of the LCA checklist with Council to assess the final Sensitivity Rating for the site to confirm LCA requirements for system selection and design. Provide a Site Plan showing the available effluent management area(s) and completed Sensitivity Pro-forma Checklist.	
4. LCA Confirmation	Using the desktop and site assessment information for the site, comment on any possible cumulative detrimental impacts that the development may have on beneficial uses of the surrounding land, surface water and groundwater.	
5. Cumulative Impacts	Design maximum wastewater load (generation rates) and organic load for the proposed development.	
	Description of existing system (if applicable).	
6 System	Target effluent treatment quality.	
6. System Selection and Design	Assess the capacity of the land to assimilate the treated wastewater based on the data collected and the total dissolved salts (TDS) in the potable water supply (see Section 2.3.4 and Appendix G of EPA Code of Practice (2013)) for both levels of effluent quality, primary and secondary	







	options (refer to the EPA website for list of currently approved systems).	
	List of effluent land application options and detailed description of preferred option and location.	
	Monthly water balance sizing the preferred effluent land application area. 70 th percentile climate data must be used for your location within the relevant Climate Zone, as detailed in Section 6.2.2 of Technical Document. A copy of the 70 th percentile climate data is attached in Appendix C of the Technical Document. All inputs, results and justification to be shown in the report.	
	Detailed discussion of mitigation measures to overcome any site or soil constraints posed to the sustainable treatment and application of wastewater on-site. This may include the following: • Storm water management	
	Soil amelioration; and Vegetation establishment and management.	
7. Mitigation Measures	Description of ways to improve wastewater and DWM system performance for residents' reference.	
8. Site Management Plan	Operation and Management Plan.	
9. Conclusion	Conclusion summarising all the important design, sizing and mitigation requirements to ensure sustainable on-site DWM.	
	Site address, including property/parcel number and street number.	
	All title boundaries.	
	All relevant zones and overlays and/or restrictions (e.g. Council zoning and overlays, including Environmental Significant Overlays and DWSCs).	
	Type of catchment (i.e. potable or other special water supply catchment).	
	North arrow.	
	Location of groundwater bores.	
10. Site Plan	Contour lines (at maximum of 2m intervals), direction of slope and grade.	
Requirements	Location of soil test pits or auger holes.	
	Location of any significant site features e.g. rock outcrops or waterlogged regions.	
	Location of intermittent and permanent surface waterways (dams, creeks, reservoirs and springs).	
	Location of 1% and 5% Annual Exceedance Probability flood level contours lines (if applicable).	
	Location, depth and specified use of groundwater bores on the site and adjacent properties from the register of the relevant Rural Water Corporation. Depth to groundwater table in winter (if less than 2.1m deep).	
	Vegetation cover (can use aerial image as base map).	







	Relevant setback distances as per Table 5 EPA Code of Practice (2013).	
	Location of existing and proposed buildings, sheds, driveways, paths and any other improvements.	
	Available effluent management area(s).	
	Location of proposed land application area (sized to scale).	
	Location of proposed storm water cut-off drains adjacent to the land application area.	
	Location of proposed DWM system (nominal).	
	Location of reserve land application area (sized to scale).	
	Copy of the monthly water balance calculations.	
11. Appendices	Figures.	
	Site Plan.	
	Soil bore logs for all test pits or auger holes.	
	Certificate of Title (s) for property/parcel (plan).	
	Proposed building plans.	
	Planning Permit application (where applicable).	
	Septic Tank Permit application.	



