Checklist for Assessment of Site and Soil Evaluation Reports

This checklist has been designed to guide the assessing officers through a recommended procedure for assessing Site and Soil Evaluation (SSE) reports for unsewered developments, subdivisions or Application to install. It should be completed with reference to the AS/NZ 1547, Government Sewerage Policy 2019 (GSP), State Planning Policy 2.9 and *the Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974*. As you move through the checklist consideration should be given to the following general procedure:

- Briefly review the SSE report to determine the general characteristics of the proposal and the site. Check local conditions, history of the site and any site-specific restrictions to onsite wastewater management.
- Carry out a brief desktop review of the SSE report using relevant guidelines, regulations, AS standards, previous records in TRIM and W:drive to ensure you are satisfied with the proposal.
- Verify that calculations (including data inputs) for designing and sizing system components are correct (including water/nutrient balances and treatment/disposal system sizing). Consider the design, installation, operation and maintenance requirements of the proposed onsite wastewater management system(s). Are they practically achievable on this site? Has LG got capacity to monitor regular maintenance of the proposed systems?
- Collate the information by completing this checklist as you move through the above processes and develop the outcomes of your assessment. It may be necessary to request further information from the proponent before a determination can be made.

WAPC/Application Reference No.	**Property Address**	**Local Government**
Date of Site Assessment	**Lot Size**	**Type of Development (e.g. Subdivision, Single Lot, Residential, Commercial)**

Notes

SSE Criteria	Site and Soil Assessment and Reporting			SSE Review	
	Site and Soil Characteristics Assessment	Yes/ No	Comments	Do proposed management programs adequately address site limitations? Provide comments when required.	Outcome (e.g. Proceed, Further information, Refuse)
Adequacy of Site Assessor	• Has the report been prepared and signed by a suitably qualified and experienced person? • Has a copy of appropriate professional indemnity insurance for this type of work been provided?				
Time of assessment	• What time of the year was site and soil assessment conducted? (don't confuse it with the date of the report)				
Location	• Is the subject land located within Sewage Sensitive Areas or Public Drinking Water Source Areas? Check the Water resource mapping www.dplh.wa.gov.au • Does the map provided represent the subject lots? • How far is the nearest sewer connection? Can the proposed development practically connect to reticulated sewerage?				
Climate	• Are the selected climate averages (rainfall and pan evaporation in mm/month) derived from the most appropriate weather station? Check climate data on the BoM website. Local Evaporation data can be found in the Evaporation Data for Western Australia Report published by the Department of Agriculture and Food (2003) (https://researchlibrary.agric.wa.gov.au/cgi/viewcontent.cgi?article=1058&context=rmtr)				
Exposure	• Has sun and wind exposure been estimated accurately? • Is it representative of proposed land application area?				
Vegetation	• Have significant stands of vegetation been described at an appropriate level of detail? Are they located on the site plan? Refer to a vegetation map for Western Australia is developed by the Department of Parks and Wildlife.				

Landform and Drainage	• Has landscape position been identified correctly (e.g. midslope, footslope)? • Has slope shape been identified correctly (convex, concave, planar)? • Has potential for the shedding or accumulation/ponding of surface water been considered? • Has subsurface drainage been considered (e.g. presence of mottling and moisture in the soil)?				
Slope	• Has slope been measured accurately? • Is it representative of proposed effluent management areas? • Has a survey with maximum 10m contour intervals (preferably 5m) been provided or referenced? • Has the LAA been engineered to prevent run-off or ingress to the LAA?				
Fill	• Has the presence, extend and quality of fill been accurately described and addressed?				
Surface Gravel and Rock Outcrops	• Has the extent of surface gravel been accurately estimated and addressed? • Has the extent of rocks and rock outcrops within the effluent management area been accurately estimated and addressed?				
Erosion potential	• Have all existing and potential erosion sites been identified and considered? • Has erosion due to proposed stormwater diversion been considered?				
Groundwater	• Has seasonal and episodic groundwater depth been accurately measured or estimated during wettest time of the year? • Has the ground water historic data from bores representing development been provided? • Has adequate consideration been given to potential groundwater impacts in the system design? • Have adequate setback distances been applied?				
Surface Waters	• Have the positions of permanent and intermittent surface waters been correctly identified? • Has the potential limitation/s of surface water proximity been adequately addressed?				

Rainfall run- on	• Have all potential sources of run-on been identified and addressed?				
Flood potential	• Have maps of areas that subject to inundation and/or flooding in a 10% Annual Exceedance Probability (AEP) rainfall event been provided?				
Setback Distances	• Are all the relevant setback distances identified on the site plan? • Have setback distances been accurately measured?				
Available land area	• Has all suitable available land been identified on the site plan? • Is any part of the available effluent management area unsuitable for land application? • Is the available land area larger than the required based on Water balance?				
Depth of soil & to watertable	• Has soil profile depth been accurately measured? • Has the depth to hardpan or bedrock been adequately measured and addressed? • Is the stated ground water depth representative of the land application area?				
Coarse fragments (%)	• Has the size and percentage of coarse fragments in each soil layer been recorded?				
Soil colour and mottling	• Have soil characteristics been accurately determined using approved methods? • Are the stated characteristics representative of the land application area?				
Texture, structure and permeability category	• Has the soil texture and permeability category in accordance with AS1547 been accurately determined and clearly described? • Has soil structure (pedality) been accurately determined and clearly described?				
Soil pH, Electrical conductivity, Soil Sodicity	• Has each parameter been analysed by a suitable laboratory using approved methods? • Have the results of analysis been interpreted correctly? • Are the results realistic in light of known soil properties of the area (if applicable?)				

Wastewater management system type and design	• How the system selection and general design parameters address the findings of the SSE report, focusing on limiting and/or high risk factors? • How onsite system treatment complies with relevant Standards and legislation requirements, or if these requirements are not met how the design mitigates risks arising from the non-compliances; and • What management strategies are in place to ensure ongoing compliance with the relevant Standards and legislation.				
Sizing of treatment and LAA	• Has wastewater and trade waste volume been adequately calculated using relevant daily application rates? • Has trade waste management been provided? • Has information about fill (if required) been provided? • Has Water balance been provided and adequately addressed? • Has calculation of treatment and land application system been provide?				
Siting and Configuration of the Land Application Area	• Has the site and system map been provided with all adequate setback distances? • Has the stormwater management been addressed?				
Monitoring, operation and maintenance	• Has the guidance on how to monitor, operate, and maintain all components of the onsite wastewater management system been provided, including the treatment and land application systems for both of wastewater and trade waste?				
Overall SSE Rating	**Do you have sufficient information to accurately determine land capability for onsite wastewater management?**				