

VICTORIAN WATER INDUSTRY

Guidance Note for Determining Dwelling Density when Assessing Planning Permit Applications



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Developed by the VicWater Open
Potable Water Supply Catchment
Management Working Group



VICTORIAN WATER
INDUSTRY ASSOCIATION INC.
"Innovation, Co-operation and Sustainability"



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Purpose

To support landowners, water corporations, planning and referral authorities and other interested stakeholders in the consistent interpretation of the default density requirements in the *Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.

Objectives

- To enable sustainable development whilst protecting the quality of water supplies.
- To achieve a consistent method across Victoria for calculating default dwelling density when assessing planning permit applications within open, potable water supply catchments.
- To provide clear guidance to landowners interested in developing their land within catchments.





Context

The *Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas* (the Guidelines) released by the Minister for Water in November 2012 specify that:

- where a planning permit is required to use land for a dwelling or to subdivide land; or
- where a planning permit to develop land is required pursuant to a schedule to the Environmental Significance Overlay that has catchment or water quality protection as an objective;

that the default position should be:

- the density of unsewered dwellings should be no greater than one unsewered dwelling per 40 hectares (1:40 ha); and
- each lot created in a subdivision should be at least 40 hectares in area.

As provided for in the Guidelines the density requirement does not apply if:

- a planning permit is not required for the proposed development;
- the dwelling is or will be connected to reticulated sewerage;
- the development is consistent with an endorsed catchment policy; or
- the council has prepared, adopted and is implementing a Domestic Wastewater Management Plan to the satisfaction of the water corporation, and
- the proposal does not represent an unacceptable risk to water quality.

A water corporation will consider allowing a higher density of development when certain conditions are met. The conditions are detailed in the Guidelines (Guideline 1, categories 1- 4). It is recommended that the Guidelines be reviewed prior to considering application of this density calculation guidance note.

The Victorian water industry supports the adoption of a consistent calculation method for determining the density of dwellings in catchment areas. This ensures that clear and consistent guidance is provided to landowners, interested in developing their land, planning referral authorities and other interested stakeholders.

This guidance note outlines a calculation method which should be used by water corporations when assessing planning permit referrals for dwelling density in a particular area. It also identifies several other issues that should be taken into consideration during the assessment.

Whilst there are a number of ways to calculate dwelling density, to achieve a consistent method across Victoria, the 1km radial method is preferred and this approach has been validated in VCAT hearings as an appropriate methodology.

It is also recognised that there may be circumstances when other methods are suitable such as the “average density” or “polygon density” methods. Where other methods are used it is recommended that the reasons for using these methods are recorded with the permit assessment.



Definitions and abbreviations

Within this document, the following terms have the meanings given:

| Term | Meaning |
|---|---|
| Special Water Supply Catchment Areas | Specified under Schedule 5 - Special Water Supply Catchment Areas of the Catchment and Land Protection Act 1994 |
| Dwelling | As per the Victorian Planning Scheme (Clause 74, Land Use Terms): A building used as a self-contained residence which must include: a sink; food preparation facilities; a bath or shower; and a closet pan and wash basin. It includes outbuildings and works normal to a dwelling. Includes Bed & Breakfast and caretaker's house |

Application of this guidance note

Water corporations should consider the following when calculating dwelling density:

- Unsewered dwelling density is calculated by counting the number of unsewered dwellings within a one-kilometre radius (314 ha) of the site of the proposed dwelling.
- The density applies to unsewered developments.
- Public land should be included when calculating dwelling density unless there are catchment specific requirements relating to the land's vulnerability which present circumstances where it may be appropriate to exclude the public land (such circumstances may include severe slopes, groundwater recharge areas etc.).
- Areas of land and dwellings that are not within the same catchment as the proposed development should not be included when calculating dwelling density.
- Areas of land within the full supply level of a reservoir should not be included when calculating the dwelling density as this land will not be developed.
- Other point sources of wastewater discharge within the one-kilometre radius of the site of the proposed dwelling should also be considered when assessing the application as it increases the cumulative impact of development.

Calculation method

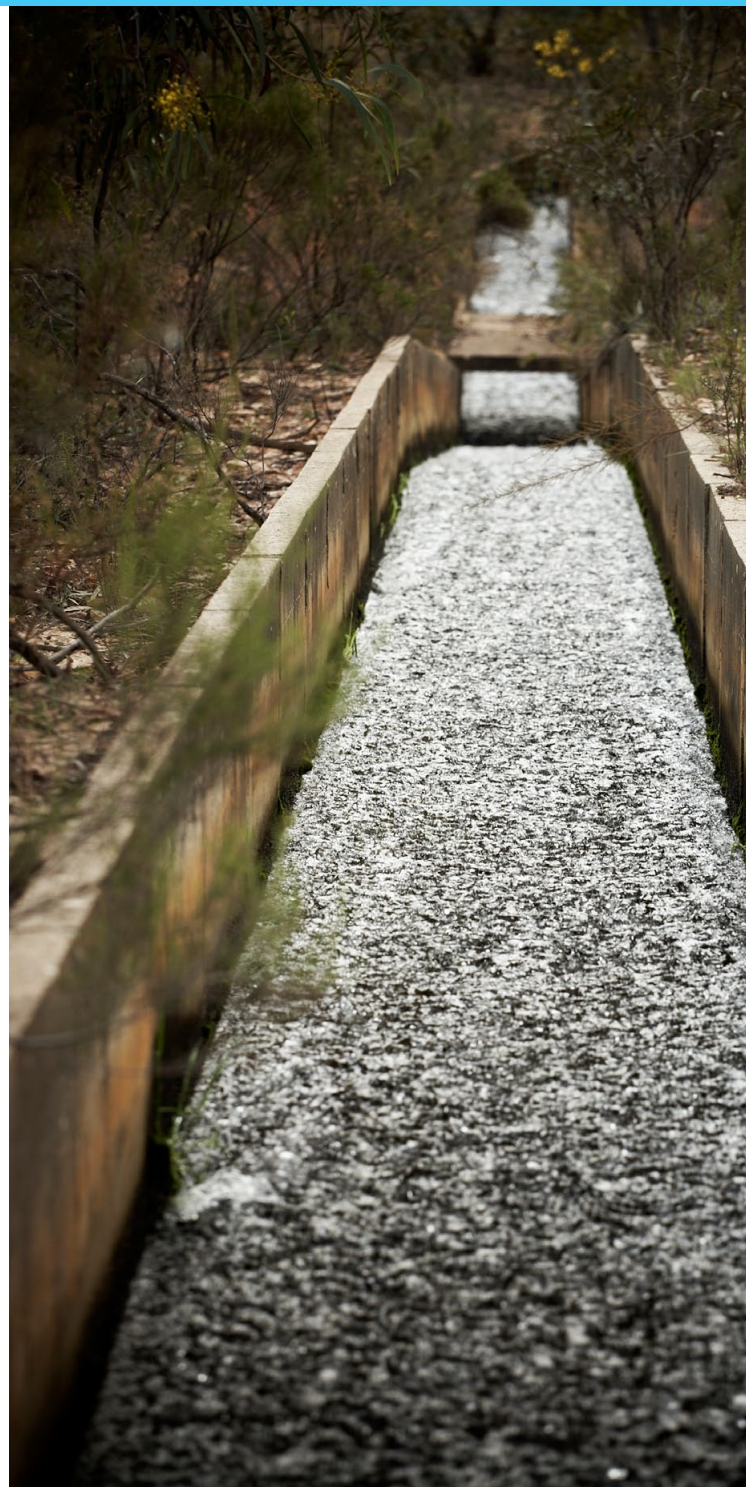
1. Apply a one kilometre radius around the proposed development site. This results in an area of 314 ha.
2. Count the number of existing dwellings within the one kilometre radius
3. If there is public land within a one kilometre radius of the proposed site and there are catchment specific requirements relating to the land's vulnerability it may be appropriate to exclude the area of public land from the equation (such circumstances may include severe slopes, groundwater recharge areas etc.)
4. Divide the area (314 ha) by the number of existing dwellings

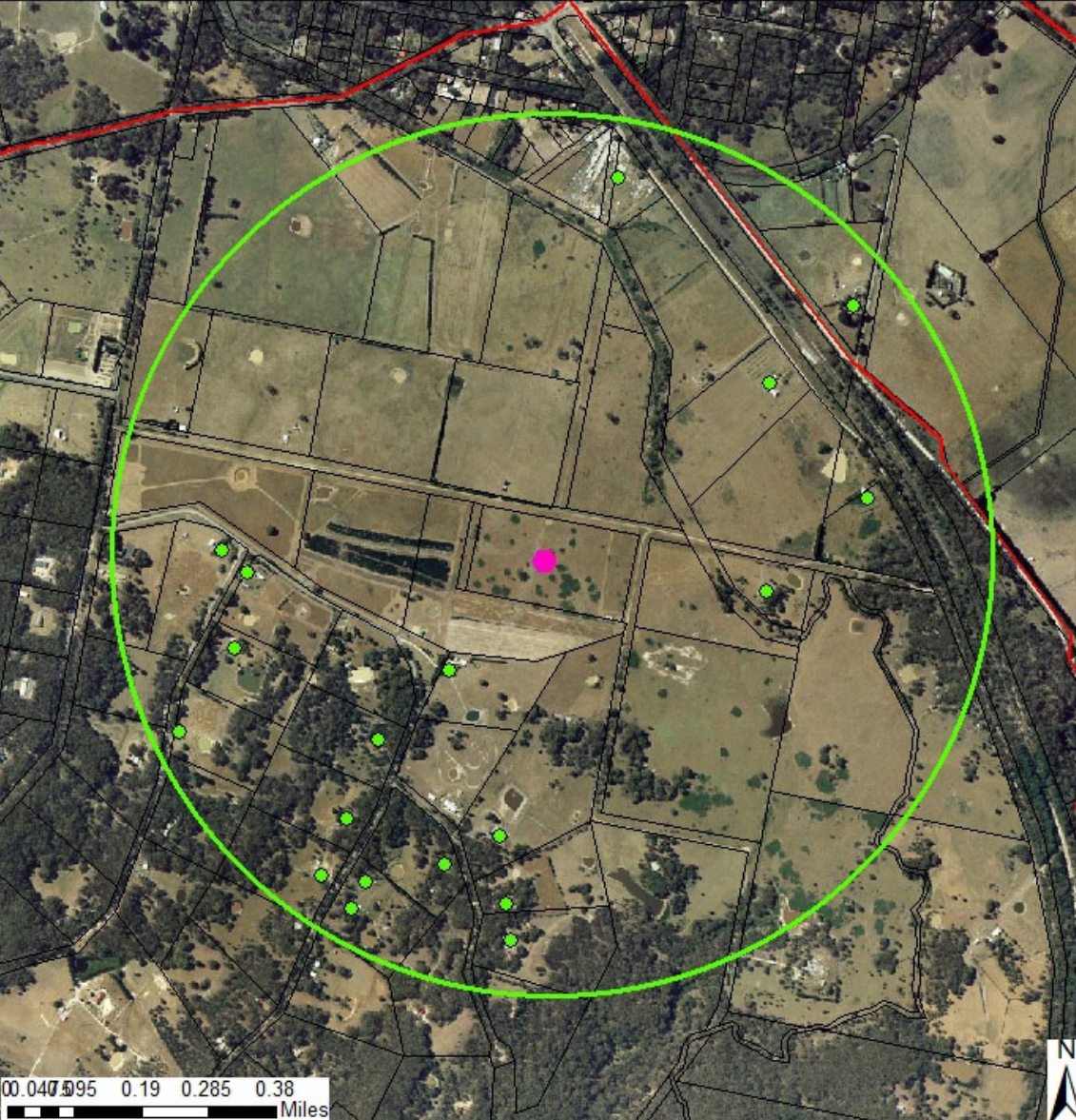
To calculate an acceptable dwelling density in an area of 314 ha:

1: 40 ha = $314 / 40$ which equals 7.85.

Rounded up there should be no more than 8 unsewered dwellings within a 1 km radius from the proposed development. Any less than 8 and the site density is less than 1:40 ha. In all cases, other matters will still need to be considered regarding the appropriateness of the application.

The examples on pages 5 - 7 illustrate straightforward dwelling density calculations.





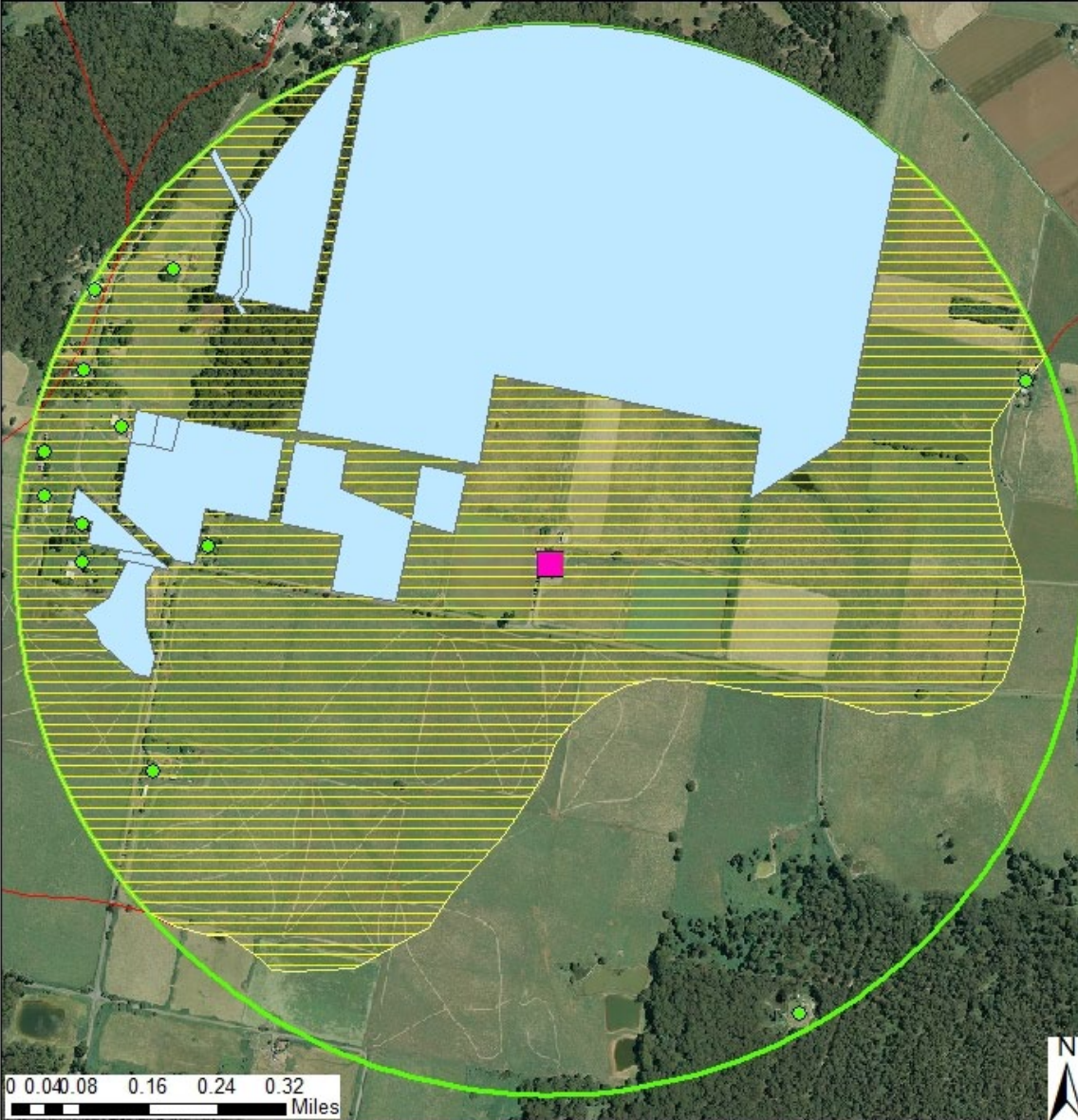
Example 1

- Subject site
- Existing dwellings with onsite wastewater systems
- 1 km radius circle around the subject site (314 ha)

Calculation:

1. Apply a one kilometre radius around the proposed development site.
2. Count the number of existing dwellings within the one kilometre radius = **19 dwellings**.
3. Divide the area (314 ha) by the number of dwellings ($314 / 19$) = **16.5, resulting in a density of 1:16.5**

The density of dwellings in the one-kilometre radius surrounding the subject site is greater than the 1:40ha default density. Therefore the water corporation considering the application would need to consider the application against the categories outlined in the *Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.



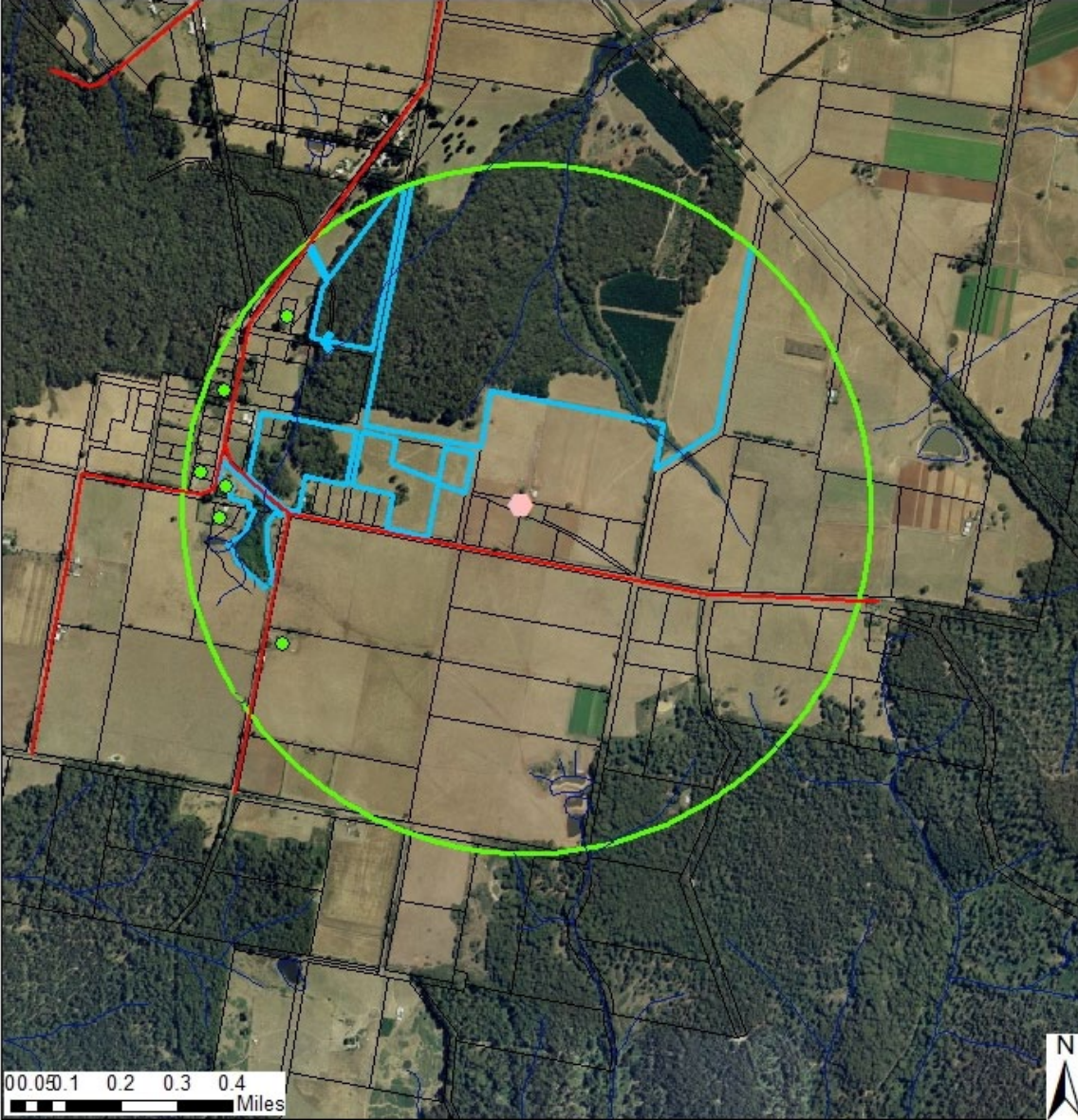
Example 2

- | | | | | | |
|---|--|---|--|--|------------|
|  | Subject site |  | Public land with vulnerabilities. |  | Catchment. |
|  | Existing dwellings with onsite wastewater systems. |  | 1 km radius circle around the subject site | | |

Calculation:

1. Apply a one kilometre radius around the proposed development site.
2. Count the number of existing dwellings within the one kilometre radius = **11 dwellings**.
NB: The dwelling sitting outside of the shaded yellow area is not included in the calculation as it is in a different catchment.
3. The public land (189ha), in this example, has particular sensitivities which present circumstances where it is appropriate to exclude it from the equation.
Total area of land involved in this density calculation is **314 ha - 189 ha (public land) - 77 ha (area of land outside the shaded yellow area) = 48 ha**
4. Divide the remaining area (48 ha) by the number of dwellings (48/11) = **4.36, resulting in a density of 1:4.36 ha**

The density of dwellings in the one-kilometre radius surrounding the subject site is greater than the 1:40ha default density and the water corporation would therefore need to consider the categories outlined in the *Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas*.



Example 3

- Subject site
- Existing dwellings with onsite wastewater systems
- 1 km radius circle around the subject site

Calculation:

1. Apply a one kilometre radius around the proposed development site.
2. Count the number of existing dwellings within the one kilometre radius = **6 dwellings**.
3. Divide the area (314 ha) by the number of dwellings (314 / 6) = **52.3, resulting in a density of 1:52.3**

In this example, the density of dwellings in the one-kilometre radius surrounding the subject site is less than the 1:40ha default density. Whilst there may be site specific issues that need further consideration the development meets Guideline 1 in the Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas.



Associated documents

- Minister for Water *Guidelines for Planning Permit Applications in Open Potable Water Supply Catchment Areas* November 2012 (Department of Sustainability and Environment)
- Guidelines for Environmental Management: Code of Practice – Onsite Wastewater Management (EPA, publication 891).
- Australian Standards:
 - AS/NZS 1547:2012, On-site domestic wastewater management:
 - AS/NZS 1546.1:2008, On-site domestic wastewater treatment units – Septic tanks:
 - AS/NZS 1546.2:2008, On-site domestic wastewater treatment units – Waterless composting toilets;
 - AS/NZS 1546.3:2008, On-site domestic wastewater treatment units - Aerated wastewater treatment systems.
- Victorian River Health Strategy (2002) (or as amended)
- State environment protection policy (Waters of Victoria) (No. S107, Gazette 4/6/2003 or as varied)
- State environmental protection policy (Groundwaters of Victoria) (No. S160, Gazette 17/12/1997 or as varied)
- Model MAV Municipal Domestic Wastewater Management Plan 2005
- Model Land Capability Assessment Report 2006



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