

- Objectives:** Place
- Outcome:** 2.1 - A diverse, well planned built environment.
- Strategy:** 2.1.1 - Actively engage in the development and promotion of an effective planning framework.

## Purpose

The objectives of this Policy are:

1. Provide suitable guidelines for dam applications, detailing the level of information required from proponents;
2. Consider dams and lakes where they are demonstrated for use to support an approved land use;
3. Inform the community of the need for a development application when considering a dam or lake application;
4. Minimise environmental impacts of dams and lakes on local water resources and vegetation;
5. Avoid visual or aesthetic impacts on landscape values from the construction of dams and lakes;
6. Minimise the cumulative impacts resulting from the indiscriminate construction of dams and lakes; and
7. Restrict the construction of dams that are for aesthetic purposes only.

## Background

The purpose of this Policy is to recognise, protect and enhance the natural environmental features including areas of high conservation value, areas within public drinking water source areas and significant watercourses. This is achieved through appropriate siting, design and construction of dams that provide safe, equitable water supply and sustainable catchment management. Dams should only be supported where it can be demonstrated that it is required to support an approved land use or domestic supply requirements.

In addition to providing for dams on rural type properties, the Policy also addresses lakes which have an aesthetic element to them.

## Definitions

Definitions that are considered integral to the interpretation of this Policy are outlined as follows:

“**Dam**” - means an area of earth works for the purposes of water collection, storage, and use that is directly associated with an approved land use or to provide a domestic water supply, but excludes drainage basins.

“**On-stream**” - means a dam/lake located across a watercourse.

“**Off-stream**” - means a dam/lake not located across a watercourse but into which water is fed from a watercourse.

“**Lake**” – means an area of earthworks for the purpose of water collection, storage, and aesthetics.

“**Watercourse**” - means any natural river, stream or creek.

## Information required with development applications



The following is the base information required for a development application for a dam or lake. Additional information may be required based on the impact of the dam or lake as assessed by this Policy:

- A detailed description of the purpose of the dam or lake.
- A detailed Geotechnical report detailing constraints of the site (if applicable).
- Application Specifics, including:
  - Cross-sections;
  - Location of the proposed dam and any upstream dams within 500m (not required for lakes);
  - Areas proposed to be landscaped;
  - Capacity of the dam or lake;
  - Materials to be used;
  - Proposed usage of the material excavated; and
  - Whether the dam or lake will be lined or not and any materials to be used for lining.
- Location of watercourses.
- Engineering certification (if applicable).

### **Policy Measures – Dams**

Dams as defined under section 3 are not supported in the following zones/designations:

- a) Residential
- b) Commercial
- c) Showroom/Warehouse
- d) Light Industry
- e) General Industry
- f) Special Residential
- g) Mixed Use
- h) Town Centre
- i) Neighbourhood Centre
- j) Highway Commercial
- k) Mixed Business

#### 1. Purpose of Dam/s

- 1.1 The construction of dams will generally only be supported where there is a demonstrated need for water storage associated with an agricultural use or for domestic purposes.
- 1.2 Where an application is made for a new dam on a lot that contains an existing dam, consideration must be given to whether the additional dam is justified in order to support the use of the land. Where the existing capacity or the combined capacity of the dams exceeds that necessary to support the existing or proposed land use, the proposed dam will not be supported as it does not reflect sustainable water management.



## 2. Environmental Considerations

- 2.1 Dams must be located to reduce the potential risk of erosion associated with both the construction and ongoing operation of the dam.
- 2.2 The potential presence of acid sulphate soils must be considered when preparing an application for the construction of a dam.

## 3. Vegetation Management

- 3.1 Revegetation and/or additional planting of appropriate native species will be required where a dam has a moderate to high impact or where a dam is visible from neighbouring properties or a public road.
- 3.2 The batter to any dam must be revegetated with perennial grasses and appropriate native species.

## 4. Impact Assessment Criteria

- 4.1 The level of impact of a proposed dam is determined as outlined in Table 1. The following criteria will determine the risk level:
- i. An application shall be deemed high risk if one or more of its characteristics falls under the 'high impact' column.
  - ii. An application shall be deemed a moderate risk if one or more of its characteristics falls under the 'moderate impact' column (with no high risk characteristics).
  - iii. An application shall be deemed a low risk if all of its characteristics fall under the 'low impact' column.

Table 1: Impact Guidelines

Dam Characteristics	Impacts		
	<i>High Impact</i>	<i>Moderate Impact</i>	<i>Low Impact</i>
Dam Size	<ul style="list-style-type: none"> <li>▪ Dams used for large scale agriculture, or other uses.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Dams used for small scale agricultural uses.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Water storage for domestic use only.</li> </ul>
Dam Location	<ul style="list-style-type: none"> <li>▪ Across a watercourse or within a public water supply catchment (within 30 metres if dam is for human consumption and 15 metres for a non-potable water source)</li> <li>▪ Within 100m from any watercourse (within Peel Harvey Coastal Plain Catchment).</li> <li>▪ Located within or adjacent to a Conservation Category.</li> <li>▪ Located within a Resource Enhancement Category</li> </ul>	<ul style="list-style-type: none"> <li>▪ Adjacent to watercourse, but outside the seasonal flow path</li> <li>▪ Located adjacent to a Resource Enhancement Category Wetland.</li> <li>▪ Located within a Multiple Use Category Wetland.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Greater than 50 metres from natural flow of watercourse</li> <li>▪ Located adjacent to a Multiple Use Category Wetland.</li> </ul>



	Wetland		
Vegetation Clearing	<ul style="list-style-type: none"> <li>▪ Impacting of vegetation within an Environmentally Sensitive Area or conservation category wetland.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Clearing or impacting on vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Does not impact upon, or involve any clearing of vegetation.</li> </ul>

5. Additional information required

5.1 Depending on the impact assessment of the proposal in accordance with Table 1, the following additional information may be required:

Table 2: Additional information

Impact	Additional Information (where relevant)
High Impact	<ul style="list-style-type: none"> <li>▪ Comprehensive hydro-geological and/or geotechnical report addressing:               <ul style="list-style-type: none"> <li>○ Impact Assessment; and</li> <li>○ Management Tasks, Roles and Responsibilities.</li> </ul> </li> <li>▪ Revegetation/Landscape Plan including bio-security considerations such as exotic plants (waterlilies) or animals (trout/carp) (if any):</li> <li>▪ Where applications are on land identified as being medium to high-risk under the State's Acid Sulphate Soils (ASS) mapping, the Shire will require pre-assessment (as per subdivision requirements) as part of application. Land which potentially contains acid-sulphate soils should be determined first by mapping and secondly by preliminary site investigations prior to approval. An ASS management plan may form a condition of approval.</li> </ul>
Moderate Impact	<ul style="list-style-type: none"> <li>▪ Brief report of hydro-geological and/or geotechnical aspects</li> <li>▪ Revegetation/Landscape Plan including bio-security considerations such as exotic plants (waterlilies) or animals (trout/carp) (if any)</li> <li>▪ Where applications are on land identified as being medium to high-risk under the State's ASS mapping, the Shire will require (a) pre-assessment (as per subdivision requirements) as part of application. ASS management plan may form a condition of approval.</li> </ul>
Low Impact	<ul style="list-style-type: none"> <li>▪ Not applicable</li> </ul>

The additional information provided for moderate and high risk proposals must address the issues associated with the scale, size, adverse impact on the environment, and adverse impact on water resource. If the issues are not adequately addressed the application will not be supported.

**Policy Measures – Lakes**

6. Consideration of a lake

6.1 The Shire of Serpentine Jarrahdale will not approve the construction of a lake within the Shire except where it can be clearly demonstrated that the constructed lake is required for irrigation purposes, drainage or a combination of these, including irrigation of private property via a reticulated (third pipe) system.



6.2 In demonstrating the need for a constructed lake for irrigation purposes, drainage or a combination of these, the proponent must first demonstrate that the lake and landscape design has sought to maximize water conservation and efficiency by reference to the requirements of *Local Planning Policy No. 67 – Landscape and Vegetation* and the State Government's *Better Urban Water Management* and will not adversely impact on the broader water system.

## 7. Drainage

- 7.1 Where a lake is proposed for water collection purposes the applicant must demonstrate the following:
- i. The lake is needed for water collection purposes and no other alternative method for dealing with the water exists.
  - ii. The capacity of the lake can cater for the water all year round.
  - iii. How water will be treated prior to entry into the lake to ensure that there is no adverse impacts on the environment such as algae blooms.

## References

<b>Name of Policy</b>	Local Planning Policy 4.4: Dams and Lakes
<b>Previous Policy</b>	Local Planning Policy 25 – Constructed Lakes Local Planning Policy 33 – Construction of Dams
<b>Date of Adoption and Resolution Number</b>	23 July 2018 - OCM063/07/18
<b>Review dates and Resolution Numbers</b>	
<b>Next review date</b>	
<b>Related documents</b>	<p><b>Acts/Regulations</b> <i>Local Government Act 1995</i></p> <p><b>Plans/Strategies</b> Strategic Community Plan 2017 - 2027</p> <p><b>Policies</b></p> <p><b>References</b></p> <p><b>Delegations</b> 11.1.1</p> <p><b>Work Procedures</b></p>

Note: changes to references may be made without the need to take the Policy to Council for review.