

# **North East Planning Referrals Committee**

## **Guidelines for the Protection of Water Quality**



**April 2001  
Updated – May, 2016**

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## **ABBREVIATIONS**

<i>AHD</i>	Australian Height Datum - is the adopted national height datum that generally relates to height above mean sea level.
<i>ARI</i>	Average Recurrence Interval - is the likelihood of occurrence expressed in terms of the long-term average number of years between the occurrence of a flood as large or larger than the design flood event. For example, floods with a discharge as large as or larger than the 100-year ARI flood will occur on average once every 100 years.
<i>CALP</i>	Catchment and Land Protection Act, 1994
<i>CMA:</i>	Catchment Management Authority
<i>DELWP</i>	Department of Environment, Land, Water and Planning
<i>DEDJTR</i>	Department of Economic Development, Jobs, Transport and Resources
<i>EPA</i>	Environment Protection Authority
<i>FO</i>	Floodway Overlay (or Rural Floodway Overlay)
<i>GBCMA</i>	Goulburn Broken Catchment Management Authority
<i>G-MW:</i>	Goulburn–Murray Water
<i>GVW</i>	Goulburn Valley Water
<i>LSIO</i>	Land Subject to Inundation Overlay
<i>ML/d</i>	Megalitres per day (Flow discharge)
<i>NECMA</i>	North East Catchment Management Authority
<i>NEPRC</i>	North East Planning Referrals Committee
<i>NEW:</i>	North East Water
<i>NPL</i>	Nominal Flood Protection Level (300mm above the 100-year ARI flood level)
<i>SEPP</i>	State Environment Protection Policy
<i>SPPF</i>	State Planning Policy Framework
<i>UFZ</i>	Urban Floodway Zone
<i>VPPs</i>	Victoria Planning Provisions

## **INTRODUCTION**

The North East Planning Referrals Committee (NEPRC) was formed in 1999 between a number of government authorities with a vision to prepare an integrated set of guiding documents, policies and requirements to cover a wide range of development activities with a particular emphasis on water quality protection.

The purpose of packaging this information is to provide local government, other agencies and the community with knowledge about water quality protection in land development assessment. In addition, the project is intended to provide some clarity towards streamlining referrals.

The guideline information is presented in tables under the types of development that may impact on water quality:

- Clearing of native vegetation
- Dam constructions
- Developments in floodplains and natural drainage lines
- Extractive industries
- Industrial development
- Infrastructure development on or adjacent to waterways
- Intensive animal industries
- Land forming and laser grading in irrigation areas
- Septic tanks, including package treatment plants
- Urban development
- Waste water treatments plans

The 2016 review provides for updated references to the Victorian Planning Provisions and supporting codes, guidelines and documents.

## **GUIDELINE TABLE CONTENT**

Information in the guideline tables comprises four columns covering the following topics:

1. Activities affecting water quality;
2. Planning process;
3. Planning tools; and
4. Fundamental policies and relevant planning conditions.

The first column provides information on the types of activities that impact on water quality, drainage and floodplain issues.

The referrals covered in the Planning Process column are in accordance with Section 55 of the *Planning and Environment Act, 1987* as listed in Clause 66 of the Victoria Planning Provisions (VPPs) and are generally relevant to water quality issues. Issues relating to the provision of other services such as electricity or telecommunications are not included.

Notice of applications, in accordance with Section 52 of the *Planning and Environment Act, 1987* have been provided to ensure authorities are aware of any developments that may impact on water quality or where licensing by a water authority is required. Other referrals may be required in Local Planning Policy pertaining to individual local government areas.

The Planning Tools column provides relevant statutory documents and guidelines that are used in the assessment of land development.

The final column provides the fundamental principles and policies in the protection of water quality and also includes general conditions that may be included in planning permits. The indicative conditions may not be all inclusive for land development or subdivision, and therefore should be used as a guide only.

### **MINIMUM SETBACKS FROM WATERWAYS AND STORAGES**

Included at the back of the guidelines is a *Setback from Waterways and Storages* table providing the various minimum setbacks . It also lists the Special Water Supply Catchment Areas as listed in Schedule 5 of the *Catchment and Land Protection Act, 1994*.

These are minimum setbacks in relation to the protection of water quality and aesthetic values only. There may be other reasons that exclude buildings and works near waterways such as flooding.

### **REFERRALS TO WATER AUTHORITIES**

In some instances individual applications, for example a dwelling, are being referred to all water authorities and corporations in a regional area. The following information is a guide to ensure that referrals are forwarded only to the appropriate authority or corporation.

#### **Use and Development - “The relevant water corporation or water supply authority”**

- Water Corporation - reticulated water and sewerage areas - eg. Goulburn Valley Water and North East Water
- Water Supply Authorities - non-reticulated areas – eg Goulburn-Murray Water

#### **Subdivision - “The relevant water, drainage or sewerage authority”**

- Relates to urban development where reticulated water and sewerage is available eg. Goulburn Valley Water and North East Water
- If subdivision is located in non-reticulated areas referral to be made to Water Supply Authorities – eg. Goulburn-Murray Water.
- Areas suspected of flooding issues but not identified within a UFZ, FO, LSIO or SBO may be referred to Catchment Management Authorities under section 52 of the Planning and Environment Act, 1987 for comment – refer to Tables.

### **FURTHER INFORMATION**

Further Information can be obtained through the following websites

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<b>Agency</b>	<b>Website</b>
Department of Economic Development, Jobs, Transport and Resources	<a href="http://economicdevelopment.vic.gov.au">economicdevelopment.vic.gov.au</a>
Department of Environment, Land, Water and Planning	<a href="http://DELWP.vic.gov.au">DELWP.vic.gov.au</a>
Environment Protection Authority	<a href="http://epa.vic.gov.au">epa.vic.gov.au</a>
Goulburn Broken Catchment Management Authority	<a href="http://gbcma.vic.gov.au">gbcma.vic.gov.au</a>
Goulburn-Murray Water	<a href="http://gmwater.com.au">gmwater.com.au</a>
North East Catchment Management Authority	<a href="http://necma.vic.gov.au">necma.vic.gov.au</a>

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**TABLE 1: GUIDELINES FOR CLEARING NATIVE VEGETATION**

Activities Affecting Native Vegetation Retention	Statutory Planning Process	Planning Tools	Principles and Policies
<p><b>Biodiversity losses due to the incremental degradation of remnant vegetation are greater than the losses from large scale clearing</b></p> <p>Incremental Degradation:-</p> <ul style="list-style-type: none"> <li>• Small scale clearing</li> <li>• Excessive grazing</li> <li>• Lack of management</li> <li>• General dieback/decline</li> <li>• Loss of understorey</li> <li>• Lack of regeneration</li> <li>• Weed invasion</li> </ul>	<p><b>Planning Permit</b> A Planning Permit is required to remove, destroy or lop native vegetation.</p> <p>Local Government, Planning Departments are responsible for approving the removal of native vegetation.</p> <p>The Department of Environment, Land, Water and Planning (DELWP) is a referral authority</p> <p><b>Section 55 referral:</b></p> <p><b>DELWP where:</b></p> <ul style="list-style-type: none"> <li>• If the area to be cleared is more than 0.5 of a hectare</li> <li>• If the clearing is determined to be in a High Risk Pathway as defined in the Biodiversity Assessment Guidelines (DELWP – 2013)</li> <li>• If a Property Vegetation Plan applies to the land</li> <li>• If the clearing is on Crown Land occupied or managed by the Responsible Authority (e.g. Council roadsides)</li> </ul> <p><b>Section 52</b> Other Permit applications may be referred to DELWP if required</p> <p><b>EXEMPTIONS</b> As listed in Clauses 52.17 of planning</p>	<ul style="list-style-type: none"> <li>• The removal of native vegetation is documented in Clause 52.16 and 52.17 of Planning Schemes in Victoria and the <i>Native vegetation Biodiversity assessment guidelines (DELWP)</i>.</li> <li>• <i>Permitted clearing of native vegetation – Biodiversity assessment guidelines, 2013</i>, is an incorporated document in all planning schemes</li> <li>• Permitted clearing of native vegetation Biodiversity assessment handbook, 2015 V10 (DELWP)</li> <li>• Biodiversity Strategy for the Goulburn Broken Catchment, Victoria – 2010-2015</li> <li>• Flora and Fauna Guarantee Act 1988</li> <li>• Commonwealth Environment Protection and Biodiversity Conservation Act 1999.</li> <li>• Environment Effects Act 1978</li> <li>• Mineral Resources (Sustainable Development) Act 1990.</li> </ul>	<ul style="list-style-type: none"> <li>• Fundamental Principles &amp; Policy:             <ul style="list-style-type: none"> <li>• Native vegetation is to be protected and conserved</li> <li>• No net loss in the contribution made by native vegetation to Victoria's biodiversity.</li> </ul> </li> <li>• Need to consider the short-term advantages of clearing vs. the long-term effects</li> <li>• Need to ensure the preservation of the natural environment and landscape values</li> <li>• Need to consider the role of native vegetation in:             <ul style="list-style-type: none"> <li>- Conserving flora and fauna</li> <li>- Protecting water quality</li> <li>- Providing shade and shelter</li> <li>- Preventing land degradation</li> <li>- Preventing groundwater recharge</li> </ul> </li> <li>• Need to retain vegetation:             <ul style="list-style-type: none"> <li>• Where slopes are greater than 20%</li> <li>• Within 30 metres of a wetland or watercourse</li> <li>• Where groundwater recharge occurs</li> <li>• on land subject to erosion, slippage or salinisation</li> <li>• where soil or subsoil may become unstable</li> <li>• in a proclaimed water supply catchment</li> <li>• significant sites (scientific, conservation, cultural)</li> <li>• where rare or supports rare fauna or flora species</li> <li>• where part of a wildlife corridor</li> </ul> </li> <li>• Cultural significance</li> </ul>

**TABLE 1: GUIDELINES FOR CLEARING NATIVE VEGETATION**

Activities Affecting Native Vegetation Retention	Statutory Planning Process	Planning Tools	Principles and Policies
	schemes across Victoria.		<ul style="list-style-type: none"> <li>• Applications must include a land management plan or works program</li> <li>• Need to consider the potential to establish and maintain native vegetation elsewhere on the land</li> <li>• Timber production covered by:                             <ul style="list-style-type: none"> <li>• Amendment S13</li> <li>• Codes of Practice</li> </ul> </li> </ul>

**TABLE 2: GUIDELINES FOR DAM CONSTRUCTION**

Activities Affecting Water Quality & Quantity	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Finite water resources</li> <li>• Catchment yields</li> <li>• Limited water supply</li> <li>• Environmental degradation</li> <li>• Effect on downstream users</li> <li>• Creates fish barriers</li> <li>• Stream bed erosion</li> <li>• Affects water quality</li> <li>• Bed &amp; bank instabilities</li> <li>• Sediment regime</li> <li>• Salinity</li> <li>• Habitat loss</li> <li>• Ability to purchase licence for water</li> <li>• Soil erosion</li> <li>• Riparian zone</li> <li>• Clearing of native vegetation</li> </ul> <p><b>Check Guidelines for Clearing Native Vegetation</b> Biodiversity losses due to the incremental degradation of remnant vegetation are greater than the losses from large scale clearing.</p> <p><b>Check Guidelines for Development in Floodplains and Natural Drainage Lines</b> If dams are to be constructed where levee banks or water diversion methods are to be</p>	<p>A Planning Permit from Local Government may not be required for the construction of a dam.</p> <p>All enquiries for dam construction or alteration to an existing dam are to be referred to Water Supply Authorities.</p> <p>All commercial dams require licencing by Water Supply Authorities.</p> <p>All dams constructed on a waterway require a licence to construct.</p> <p>Any clearing of native vegetation to accommodate a new dam will require a planning permit from Local Government.</p> <p>As from the 1 January 2011 the regulations for all new household dams in rural-urban fringe areas in Victoria need to be registered with rural water corporations.</p> <p>Property owners in rural residential areas are required to register with their Water Supply Authority (eg Goulburn-Murray Water) any new aesthetic dam, domestic and stock dam, or plan to significantly alter existing dams before commencing any works.</p> <p>A rural residential area is any property located within the rural living zone, green wedge zones and any residential zone as defined by Victoria's Planning Schemes, or any property that is eight hectares (20 acres) or smaller.</p> <p>You can check with your local council if</p>	<ul style="list-style-type: none"> <li>• Questions &amp; Answers <i>New regulations for household dams January 2011</i></li> <li>• Irrigation and Commercial Farm Dams - Licence to Water</li> <li>• Water Act, 1989</li> <li>• Water (Irrigation Farm Dams) Act 2002</li> <li>• Catchment and Land Protection Act, 1994</li> <li>• Catchment Management Strategy</li> <li>• Victoria's Biodiversity Strategy</li> <li>• Fisheries Act, 1995</li> <li>• Flora &amp; Fauna Guarantee Act, 1988</li> <li>• Heritage Rivers Act, 1992</li> <li>• SEPP Waters of Victoria, (EPA 1988)</li> <li>• Construction Techniques for Sediment Pollution Control (EPA 1991)</li> </ul>	<p><b>Floodplain Management</b></p> <ul style="list-style-type: none"> <li>• Not permitted within Flood Overlay (generally greater than 500 millimeters deep in a 100-year ARI flood), unless in accordance with a Local Floodplain Development Plan or a favourable risk management assessment under the VPPs.</li> <li>• In floodway areas sump dams are permitted if spoil material is removed.</li> </ul> <p><b>Definitions under the Water Act, 1989</b></p> <p>"<b>domestic and stock use</b>", in relation to <u>water</u>, means use for—</p> <ol style="list-style-type: none"> <li>(a) household purposes; or</li> <li>(b) <u>watering</u> of animals kept as pets; or</li> <li>(c) <u>watering</u> of cattle or other stock; or</li> <li>(ca) in the case of the curtilage of a house and any outbuilding, <u>watering</u> an area not exceeding 1.2 hectares for fire prevention purpose with <u>water</u> obtained from a spring or soak or <u>water</u> from a dam; or</li> <li>(d) <u>irrigation</u> of a <u>kitchen garden</u>—</li> </ol> <p>but does not include use for dairies, piggeries, feed lots, poultry or any other intensive or commercial use;</p> <p>"<b>private dam</b>" means anything in which by means of an excavation, a bank, a barrier or other <u>works</u> <u>water</u> is collected, stored or concentrated but does not include—</p> <ol style="list-style-type: none"> <li>(a) anything owned or operated by a <u>public statutory body</u>; or</li> <li>(b) any <u>works</u> of an <u>Authority</u>; or</li> <li>(c) a channel, drain or pipe; or</li> </ol>

**TABLE 2: GUIDELINES FOR DAM CONSTRUCTION**

Activities Affecting Water Quality & Quantity	Statutory Planning Process	Planning Tools	Principles and Policies
<p>used.</p>	<p>your property is in a rural residential zone.</p> <p>People with existing dams in rural residential areas will not need to register them unless they want to significantly alter them.</p> <p>Property owners who live outside a rural residential area (with a property size greater than eight hectares) do not need to register their domestic and stock dams.</p> <p>If you require a surface water licence (take and use) or a dam construction licence then you do not need to also register your dam with the relevant Water Authority, GMW and</p> <p>(<a href="http://www.g-mwater.com.au/water-resources/regulationsforhouseholddams">http://www.g-mwater.com.au/water-resources/regulationsforhouseholddams</a>)</p>		<p>(d) a <u>bore</u>;</p> <p>"public statutory body" includes a <u>council</u>;</p> <p><b>Section 51 Licence to take and use water</b></p> <p>(1) A <u>person</u> may apply to the Minister for the issue of a licence to take and use—</p> <p>(a) <u>water</u> from a <u>waterway</u> (including the River Murray); or</p> <p>(b) <u>groundwater</u>; or</p> <p>(ba) <u>water</u> from a spring or soak or <u>water</u> from a dam (to the extent that it is not rainwater supplied to the dam from the roof of a building or <u>water</u> supplied to the dam from a <u>waterway</u> or a <u>bore</u>), for a use other than <u>domestic and stock use</u>; or</p> <p>(c) <u>water</u>, other than <u>recycled water</u>, from any <u>works</u> of an <u>Authority</u>; or</p> <p>(d) <u>water</u>, other than <u>recycled water</u>, from any <u>works</u> of a <u>person</u> holding a <u>water</u> licence, a <u>water</u> and <u>sewerage</u> licence or a <u>water</u> headworks licence issued under Division 1 of Part 2 of the <u>Water Industry Act 1994</u>.</p> <p><b>Section 67</b></p> <p>(1A) A <u>person</u> may apply to the Minister for the issue of a licence to construct, alter, operate, remove or decommission a <u>private dam</u>, other than on a <u>waterway</u>, that:</p> <p>(a) has a wall that is 5 metres or more high above ground level at the downstream end of the dam and a capacity of 50 megalitres or more; or</p> <p>(b) has a wall that is 10 metres or more high above ground level at the downstream</p>

**TABLE 2: GUIDELINES FOR DAM CONSTRUCTION**

Activities Affecting Water Quality & Quantity	Statutory Planning Process	Planning Tools	Principles and Policies
			<p>end of the dam and a capacity of 20 megalitres or more; or</p> <p>(c) has a wall that is 15 metres or more high above ground level at the downstream end of the dam, regardless of the capacity; or</p> <p>(d) is a dam belonging to a prescribed class of dams.</p>

**TABLE 3-1: GUIDELINES FOR NEW DWELLINGS AND BUILDINGS IN FLOODPLAINS AND ACROSS NATURAL DRAINAGE LINES**

Activities Affecting Floodplains and Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>Protecting life, property and infrastructure from flood hazard</li> <li>Removal of flood storage function from rivers, streams and floodplains</li> <li>Diversion of flood waters to other areas</li> <li>Increased flood damages</li> <li>Reduced access during flood events</li> <li>Increase demands on emergency agencies</li> <li>Increase demands on community infrastructure and recovery services.</li> <li>Cumulative impacts on floodplain</li> <li>Infrastructure or restrictions, such as access roads, across floodplains or natural drainage lines</li> <li>Reduction in the availability of water resources</li> </ul> <p><b>See Tables 3-3 &amp; Table 3-4 below</b></p>	<p>Most buildings and works are prohibited uses within the Urban Floodway Zone (UFZ)</p> <p>A permit is required if located within:</p> <ul style="list-style-type: none"> <li>Land Subject to Inundation Overlay (LSIO)</li> <li>Floodway Overlay (FO)</li> </ul> <p><b>Section 55 Referral:</b> Relevant Water Corporation or Water Supply Authority if within a Special Water Supply Catchment Area listed in Schedule 5 of the <i>Catchment and Land Protection Act, 1994</i>, and which provides water to a domestic supply.</p> <p>CMA if in:</p> <ul style="list-style-type: none"> <li>Urban Floodway Zone (UFZ)</li> <li>Land Subject to Inundation Overlay (LSIO)</li> <li>Flood Overlay (FO)</li> </ul> <p>Unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</p> <p><b>Section 52 Referral:</b> CMA if flooding is suspected.</p>	<ul style="list-style-type: none"> <li>Victoria Planning Provisions - SPPF – Clause 13.02 Floodplains</li> <li>Planning Scheme clauses associated with Flood Overlays (FO) and Land Subject to Inundation Overlays (LSIO) that may affect the land</li> <li>Local Floodplain Development Plans incorporated within a Planning Scheme that may affect the land.</li> <li>State Environment Protection Policy (Waters of Victoria).</li> <li>Regional catchment strategies and special area plans approved by the Minister for Environment and Climate Change.</li> <li>Any floodplain management manual of policy and practice, or catchment management, river health, wetland or floodplain management strategy adopted by the relevant Responsible floodplain management authority.</li> <li>Any best practice environmental management guidelines for stormwater adopted by the Environment Protection Authority.</li> <li>Victoria Floodplain Management</li> </ul>	<p><b>Fundamental Principles &amp; Policy:</b></p> <ul style="list-style-type: none"> <li>To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.</li> <li>Most development is prohibited within Urban Floodway Zone (UFZ).</li> <li>Not allowable within a Flood Overlay (generally greater than 500 mm in a 1% flood), and/or where access is cut by 800mm (in rural areas) or 500mm (in urban areas) unless in accordance with a Local Floodplain Development Plan or a favourable risk management assessment.</li> <li>Development is generally allowable on Land Subject to Inundation Overlay, where defined in the Overlay and its Schedule.</li> <li>This also applies to the Flood Overlay and its Schedule</li> <li>Exemptions from requiring a planning permit can be found in UFZ, LSIO and FO and associated schedules.</li> <li>If a local floodplain development plan has been adopted for the area and incorporated into a planning scheme, an application must be consistent with that plan.</li> <li>Local municipal councils shall assess any local drainage impacts.</li> <li>The retention of natural drainage corridors with a 30 metre wide vegetated buffer zone along waterways in accord with SPPF.</li> </ul>

**TABLE 3-1: GUIDELINES FOR NEW DWELLINGS AND BUILDINGS IN FLOODPLAINS AND ACROSS NATURAL DRAINAGE LINES**

Activities Affecting Floodplains and Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
		Strategy (Department of Natural Resources and Environment, 1998). <ul style="list-style-type: none"> <li>• Minimum Setbacks from Waterways and Storages (Water Authorities, 1999) - see <b>TABLE 12.</b></li> </ul>	

**TABLE 3-2: GUIDELINES FOR SUBDIVISIONS IN FLOODPLAINS AND ACROSS NATURAL DRAINAGE LINES**

Activities Affecting Floodplains and Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Works that impact on the pattern of drainage and flooding across the land eg. roads</li> <li>• Expectation to construct additional dwellings</li> <li>• New fencing</li> </ul>	<p><b>Section 55 Referral:</b> To relevant water, drainage or sewerage authority <b>other than:</b></p> <ul style="list-style-type: none"> <li>• Boundary realignment.</li> <li>• The subdivision of an existing building already connected to sewerage and water services.</li> <li>• A two lot subdivision.</li> <li>• The subdivision of land into lots each containing an existing dwelling or car parking space.</li> </ul> <p><b>CMA</b></p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ)</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO). Unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</li> </ul> <p><b>Section 52 Referral:</b> CMA if flooding is suspected</p> <p>If in the opinion of the Local Government Authority the subdivision plan may affect existing sewerage, water, drainage or other works. The plan must be referred to the referral authority responsible for those works for comment.</p>	<p>As above in Table 3-1</p>	<p><b>Fundamental Principles &amp; Policies</b></p> <ul style="list-style-type: none"> <li>• No further subdivision allowed in UFZ or FO.</li> <li>• Boundary realignments may be acceptable.</li> <li>• Local municipal councils shall assess any local drainage impacts.</li> <li>• The retention of natural drainage corridors with a 30 metre wide vegetated buffer zone along waterways in accord with SPPF.</li> </ul>

**TABLE 3-3: GUIDELINES FOR LEVEE BANKS, INFRASTRUCTURE OR RESTRICTIONS IN FLOODPLAINS AND ACROSS NATURAL DRAINAGE LINES**

Activities Affecting Floodplains and Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Increased rainfall and nutrient runoff</li> <li>• Blocks flood paths</li> <li>• Diverts flood waters</li> <li>• Removal of natural flood storage</li> <li>• Increased depth of flooding</li> <li>• Increased flow velocity</li> <li>• Impacts to adjoining property owners</li> <li>• Cumulative Impacts</li> <li>• Increased waterway erosion</li> <li>• Degrade environmental values of wetlands</li> </ul> <p><b>Check Guidelines on Land forming and Laser grading – See TABLE 8</b></p>	<p><b>A Planning permit is required for earthworks within most zones or associated within a Section 2 use.</b></p> <p><b>Section 55 Referral:</b>                      Relevant Catchment Management Authority or Water Supply Authority if within a Special Water Supply Catchment Area listed in Schedule 5 of the <i>Catchment and Land Protection Act, 1994</i> and which provides water to a domestic supply.</p> <p><b>CMA if in:</b></p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ)</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO).                      Unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</li> </ul> <p><b>Section 52 Referral:</b>                      CMA if flooding is suspected and G-MW &amp; NE-W if activity affects their assets.</p>	<ul style="list-style-type: none"> <li>• As above in Table 3-1</li> <li>• Regional Drainage Strategy</li> <li>• <i>Earthworks Planning Controls</i> (G-MW &amp; GBCMA, June 1999)</li> <li>• <i>SIR Significant Drainage Line Plans</i> (G-MW &amp; GBCMA, April 1998)</li> <li>• <i>Water Act, 1989</i> –Section 16-21</li> <li>• <i>Control of Works in Natural Drainage Systems</i> (G-MW &amp; CALPB, 1996)</li> <li>• Flood Overlay Maps</li> <li>• Drainage Course Declarations</li> </ul>	<ul style="list-style-type: none"> <li>• Earthworks that change the natural topography of the landscape and subsequently affect the natural flow of water across catchments.</li> <li>• Issues relating to works on natural drainage lines can be closely linked with Floodplain Management Practices, which are controlled by Catchment Management Authorities.</li> <li>• In accordance with a Local Floodplain Development Plan or a favourable risk management assessment.</li> <li>• Allowable to protect existing <b>urban</b> type development having regard to social, economic and environmental matters.</li> <li>• No new private levees unless part of an adopted scheme.</li> <li>• Allow maintenance of existing levees provided crest heights are not raised.</li> <li>• Obligations under the Water Act 1989</li> <li>• The retention of natural drainage corridors with a 30 metre wide vegetated buffer zone along waterways in accord with SPPF.</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>• Allow for sufficient “through” flow along existing flow paths to the satisfaction of the Responsible Authority and the CMA.</li> <li>• GBCMA - If maintaining existing levees the proponent must submit pre and post levee height surveys by a licenced surveyor to the satisfaction of the</li> </ul>

**TABLE 3-3: GUIDELINES FOR LEVEE BANKS, INFRASTRUCTURE OR RESTRICTIONS IN FLOODPLAINS AND ACROSS NATURAL DRAINAGE LINES**

Activities Affecting Floodplains and Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
			Responsible Authority showing no raising of levees <ul style="list-style-type: none"> <li>• Provision of on farm storage, re-use systems and flow retardation</li> <li>• Minimum reduction (10%) in passive storage areas.</li> <li>• Provision of adequate openings to maintain '<i>reasonable flow</i>' in drainage course for 10-year ARI flow to the satisfaction of responsible authority and CMA where drainage issues prevail.</li> <li>• Provision of adequate openings to maintain identified flood paths for a 100-year ARI flood to the satisfaction of responsible authority and CMA where flooding issues prevail</li> </ul>

**TABLE 4: GUIDELINES FOR EXTRACTIVE INDUSTRIES**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Protection of groundwater and drainage</li> <li>• Disposal of effluents</li> <li>• Alteration of sediment transfer initiating bed and bank instabilities</li> <li>• Soil stability/ erosion control</li> <li>• Potential to initiate an avulsion (<i>ie</i> change in watercourse)</li> <li>• Nutrient and sediment discharge into waterways</li> <li>• Management of waste products if processing is undertaken on-site</li> <li>• Storage of products extracted</li> <li>• Storage of Chemicals</li> <li>• Loss/disturbance of vegetation and habitat</li> <li>• Adequate rehabilitation plans</li> </ul>	<p>A Work Plan must be lodged and approved by Energy and Resources, Department of Economic Development, Transport, Jobs and Resources in conjunction with the issuing of a Planning Permit from the Responsible Authority.</p> <p>Following approval of the Work Plan and the issuing of a Planning Permit a Work Authority will be issued by the Energy and Resources Department.</p> <p>The planning permit should be concerned with off-site effects, and the relationship of the site with surrounding land uses.</p> <p>The Work Authority should cover operational matters of the extractive industry and rehabilitation.</p> <p><b>Section 55 Referrals:</b></p> <p>Secretary to the Department administering the Heritage Act 1995.</p> <p>Secretary to the Department administering the Mineral Resources (Sustainable Development) Act 1990 (Department of Economic Development, Transport, Jobs and Resources)</p> <p><b>EPA</b></p> <ul style="list-style-type: none"> <li>• A licence to discharge or emit waste in accordance with Section 20 of the Environment Protection Act 1970.</li> <li>• To use or develop land for stone extraction if the land is intended to be used for land fill at a future date</li> </ul>	<ul style="list-style-type: none"> <li>• Victoria Planning Provisions - Clauses 52.08 - Earth and Energy Resource Industry and Clause 52.09 – Stone Extraction and Extractive Industry Interest Areas.</li> <li>• <b>Extractive Industries Work Plan Guidelines, Mineral Resources (Sustainable Development) Act 1990</b>, Energy and Resources, Department of Economic Development, Transport, Jobs and Resources</li> <li>• <b>Codes of Practice for Small Quarries</b>, Energy and Resources, Department of Economic Development, Transport, Jobs and Resources</li> <li>• <b>Codes of Practice for Low Risk Mines</b> (DSDBI, 2014)</li> <li>• <b>Codes of Practice for Mineral Exploration</b> (DEDJTR, 2014)</li> <li>• Mineral Resources (Sustainable Development) Act 1990.</li> <li>• Mineral Resources (Sustainable Development) (Extractive Industries) Regulations 2010</li> <li>• Extractive Industries Development Act, 1995</li> <li>• Construction Techniques for Sediment Pollution Control (EPA 1991)</li> <li>• Environmental Guidelines Management of Water in Mines and Quarries: Victorian Legal and Policy Requirements</li> </ul>	<p><b>Fundamental Principles &amp; Policy:</b></p> <ul style="list-style-type: none"> <li>• Extractive industries must not contribute to sediment entering waterways and threaten waterway health.</li> <li>• Extraction on a floodplain shall not threaten floodplain stability.</li> <li>• Discharge of process solutions or quarry waste must not enter waterways</li> <li>• All discharge from the site must meet the standards of the EPA.</li> <li>• Extractive industries to be located greater than 100 metres from waterway.</li> <li>• The retention of natural drainage corridors with a 30 metre wide vegetated buffer zone along waterways in accord with SPPF.</li> <li>• Management of waste products from processing</li> </ul> <p><b>General Conditions Only:</b></p> <p>Planning Permit conditions:</p> <ul style="list-style-type: none"> <li>• Off-site effects and the relationship with the surrounding land</li> <li>• Planning administration matters such as:                             <ul style="list-style-type: none"> <li>• Commencement of extraction works</li> <li>• External buffer zones</li> <li>• Preparation of an overall development plan; in most cases this requirement will be satisfied by the work plan</li> <li>• Requirement to comply with conditions of a planning permit or a work authority</li> </ul> </li> <li>• Access roads, traffic routes, truck movements, road safety and impact on</li> </ul>

**TABLE 4: GUIDELINES FOR EXTRACTIVE INDUSTRIES**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
	<p><b>GMW</b></p> <ul style="list-style-type: none"> <li>In Special Areas declared under Section 27 of the Catchment and Land Protection Act 1994.</li> <li>On land where the use or development involves the removal or destruction of native vegetation if the total area to be cleared is 10 hectares or greater.</li> <li>On land which has been identified in this scheme as being subject to high erosion risk or areas identified as being subject to salinity management.</li> </ul> <p>Secretary to the Department administering the Catchment and Land Protection Act 1994</p> <p><b>DELWP</b></p> <p>Secretary to the Department administering the Flora and Fauna Guarantee Act 1988 if:</p> <ul style="list-style-type: none"> <li>In areas with communities or taxa listed or critical habitat determined under the Flora and Fauna Guarantee Act 1988.</li> <li>On land which has been identified in this scheme as containing sites of flora or fauna significance.</li> </ul> <p>Secretary to the Department administering the Land Act 1958, Crown Land (Reserves) Act 1978, National Parks Act 1975 and Forests Act 1958</p> <ul style="list-style-type: none"> <li>To use or develop land for stone extraction on Crown land or land abutting Crown land, other than a government road.</li> </ul>		<p>local road network</p> <ul style="list-style-type: none"> <li>Fauna and flora protection</li> <li>Performance standards for controls regarding impact on the neighbouring properties (eg dust, noise)</li> <li>Visual impact and landscaping requirements</li> <li>Lighting</li> <li>Control of sewage effluent disposal</li> <li>Protection of flood prone areas</li> <li>Fire prevention measures, especially in areas of designated high fire risk</li> <li>Building approvals and regulations</li> <li>Services</li> <li>Parking areas</li> <li>Protection of natural and cultural values</li> <li>Identification signs</li> </ul> <p>The work authority conditions should cover operational matters of the quarrying proposal:</p> <ul style="list-style-type: none"> <li>Work plans</li> <li>Fencing and security</li> <li>Internal Roads</li> <li>Surface disturbance</li> <li>Drainage and discharge control</li> <li>Slimes and water dams</li> <li>Erosion control</li> <li>Noxious weeds</li> <li>Hydrocarbons storage</li> <li>Dust Emissions</li> <li>Noise Emissions</li> </ul>

**TABLE 4: GUIDELINES FOR EXTRACTIVE INDUSTRIES**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
	<p><b>CMA</b></p> <ul style="list-style-type: none"> <li>To use or develop land for stone extraction on land which has been identified in this scheme as flood prone.</li> </ul> <p><b>VICROADS</b> To use or develop land for stone extraction:</p> <ul style="list-style-type: none"> <li>On land which abuts a local road which intersects with a road declared as a freeway or an arterial road under the Road Management Act 2004 and if the development is expected to increase traffic movement at the intersection of the local road and the declared road by ten percent or more.</li> <li>On land which abuts a road declared as a freeway or an arterial road under the Road Management Act 2004. This does not apply to a development which generates less than one hundred commercial trips per day, with roadworks at the entrance to the site built in accordance with the requirements of the Roads Corporation and the declared road is not a freeway.</li> </ul> <p><b>Section 52 Notice:</b> Notice must be given to Energy and Resources, Department of Economic Development, Transport, Jobs and Resources for the following:</p> <ul style="list-style-type: none"> <li>An application, if a permit is granted, would allow residential land use,</li> </ul>		<ul style="list-style-type: none"> <li>Derelict and redundant plan</li> <li>Internal visual screening</li> <li>Progressive rehabilitation</li> <li>Final rehabilitation</li> </ul>

**TABLE 4: GUIDELINES FOR EXTRACTIVE INDUSTRIES**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
	<p>rural residential or land use with a substantial residential or rural residential component within an extractive industry interest area.</p> <ul style="list-style-type: none"> <li>An application which, in the opinion of the Responsible Authority, may materially affect an extractive industry site approved under the <i>Extractive Industries Act, 1966</i> or an extractive industry site in respect of which an application was made under the <i>Extractive Industries Act, 1966</i>.</li> </ul>		

**TABLE 5: GUIDELINES FOR INDUSTRIAL DEVELOPMENT**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Inappropriate management of wastewaters</li> <li>• Accidental spillages</li> <li>• Contaminated runoff</li> <li>• Inappropriate disposal of waste</li> <li>• Chemicals, dangerous goods</li> <li>• Sediment control during construction</li> <li>• Stormwater management</li> </ul>	<p><b>Section 55 Referral:</b></p> <p><b>Environment Protection Authority</b></p> <ul style="list-style-type: none"> <li>• To use land for an industry or Warehouse for a purpose listed in the table to Clause 52.10 shown with a Note 1 or if the threshold distance cannot be met.</li> <li>• If proposal involves a Works Approval, licence to discharge or licence amendment.</li> </ul> <p><b>The Victorian WorkCover Authority</b></p> <p>To use land or to construct a building or construct or carry out works on land for an industry or warehouse for a purpose listed in the table to Clause 52.10 shown with a Note 2 and if any of the following apply:</p> <ul style="list-style-type: none"> <li>• A fire protection quantity is exceeded under the Dangerous Goods (Storage and Handling) Regulations 2012.</li> <li>• A notification is required under the Occupational Health and Safety Regulations 2007.</li> <li>• A licence is required under the Dangerous Goods (Explosives) Regulations 2011.</li> <li>• A licence is required under the Dangerous Goods (HCDG) Regulations 2005 and the use is not associated with agriculture.</li> </ul>	<ul style="list-style-type: none"> <li>• Victoria Planning Provisions Clause 52.09 &amp; 52.10</li> <li>• <i>Best Practice Environmental Management Guidelines for Urban Stormwater</i> (CSIRO, 1999)</li> <li>• EPA Pub 275, <i>Construction Techniques for Sediment Pollution Control</i> (1991)</li> <li>• EPA Pub 480, <i>Environmental Guidelines for Major Construction Sites</i></li> <li>• <i>Water Act, 1989</i></li> <li>• Best Practice Environmental Management Guidelines - produced by relevant industries</li> <li>• <i>Minimum Setbacks from Waterways and Storages</i> (Water Authorities, 1999) - see <b>TABLE 12</b></li> </ul>	<p><b>Fundamental Principles &amp; Policy:</b></p> <ul style="list-style-type: none"> <li>• No impact on water quality must occur during the construction stage.</li> <li>• Sediment management will be a key requirement to development</li> <li>• No net increase in sediment to the catchment</li> <li>• Rezoning's to Industrial 1: Not within 100m of a residential area or other potentially sensitive land use or zone, e.g. public open space, kindergarten/pre-school.</li> <li>• Not on slopes greater than 20% (1 in 5)</li> <li>• The retention of natural drainage corridors with a 30m wide vegetated buffer zone along waterways in accord with SPPF.</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>• All development must be connected to a reticulated sewerage system if available</li> <li>• All wastewater and contaminated stormwater must be treated and contained or re-used on site.</li> <li>• A wastewater management plan prepared by a consultant if reticulated sewerage is not available</li> <li>• EPA Works Approval must be sought where necessary.</li> <li>• A stormwater management plan.</li> <li>• All chemical storage/loading/unloading areas must comply with EPA Publication No TG 347/92 "<i>Bunding Guidelines</i>"</li> </ul>

**TABLE 5: GUIDELINES FOR INDUSTRIAL DEVELOPMENT**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
	<p><b>Relevant Water Corporation and Water Supply Authority:</b></p> <ul style="list-style-type: none"> <li>• Industrial subdivision (&gt;2 lots)</li> </ul> <p><b>CMA</b> if in:</p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ)</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO). Unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</li> </ul> <p><b>Section 52 Notice:</b></p> <p><b>Relevant Water Supply Authority and Water Corporation:</b></p> <p>Where the subject land is in a Special Water Supply Catchment Area listed in Schedule 5 of the <i>Catchment and Land Protection Act, 1994</i> and which supplies water to a domestic water supply.</p> <p>Water Supply Authority for subdivisions not connected to reticulated sewerage.</p> <p><b>CMA</b> require notice of industrial development where flooding is suspected.</p>		

**TABLE 6: GUIDELINES FOR INFRASTRUCTURE DEVELOPMENT ON OR ADJACENT TO WATERWAYS (EG BRIDGES, CULVERTS, ROADWORKS, PIPING, WATER AND SEWERAGE WORKS)**

Activities Affecting Waterways	Statutory Planning Process	Planning Tools	Principles and Policies
<p><b>Infrastructure:</b></p> <ul style="list-style-type: none"> <li>• Reduced stability of bed or banks</li> <li>• Structure undermined by deepening</li> <li>• Structure bypassed by bank instability</li> <li>• Waterway restriction</li> <li>• Fish passage</li> <li>• Flooding</li> <li>• Erosion</li> <li>• Public safety</li> <li>• Aesthetics</li> </ul> <p><b>Diversion of waterway through piping, draining swamps etc:</b></p> <ul style="list-style-type: none"> <li>• Stream aggradation or degradation</li> <li>• Loss of habitat</li> <li>• Interaction of terrestrial environment with waterway</li> <li>• Stability, particularly in high flow events</li> <li>• Sediment movement</li> <li>• Fish passage</li> <li>• Energy dissipation at outlet</li> <li>• Aesthetics</li> </ul> <p><b>See guidelines on Land-forming and Laser grading - TABLE 8</b></p>	<p>If works are to be located on a waterway a licence to “Construct and Operate Works on a Waterway” <b>must</b> be obtained from G-MW or NE-W.</p> <p><b>If a licence has not been granted or is unlikely to be issued a planning permit should not be issued.</b></p> <p><b>Section 55 Referral:</b></p> <ul style="list-style-type: none"> <li>• Relevant water board or water supply authority if within a Special Water Supply Catchment Area listed in Schedule 5 of the <i>Catchment and Land Protection Act, 1994</i> and which provides water to a domestic supply.</li> <li>• DELWP if Crown land or native vegetation removal is required e.g. stream reserve</li> <li>• EPA if works approval required for a licence to discharge or emit waste or amendment to existing licence</li> </ul> <p><b>Section 52 Notice:</b></p> <ul style="list-style-type: none"> <li>• CMA requests notice to be given for site assessment for works that may impact on waterways.</li> <li>• If works are to be located on a waterway or adjacent to a waterway, G-MW and NE-W to ensure that licensing requirements are met.</li> </ul>	<ul style="list-style-type: none"> <li>• Victoria Planning Provisions</li> <li>• Heritage River Act, 1992</li> <li>• Water Act 1989</li> <li>• Fisheries Act, 1995</li> <li>• Flora and Fauna Guarantee Act, 1988</li> <li>• <i>State Environment Protection Policy (SEPP) - Waters of Victoria, 1988</i></li> <li>• <i>Catchment and Land Protection Act, 1994</i></li> <li>• <i>Victoria’s Biodiversity Strategy (NRE, 1998)</i></li> <li>• <i>Construction Techniques for Sediment Pollution Control (EPA 1991)</i></li> <li>• VPPs – Clause 62.02 - Buildings and works <b>not</b> requiring a permit</li> </ul>	<p><b>Principles &amp; Policy:</b></p> <ul style="list-style-type: none"> <li>• Development on a waterway shall result in no net reduction in waterway health.</li> <li>• No reduction in waterway capacity or increase in flooding as a result of construction works</li> <li>• Ensure nutrient and sediment controls are considered</li> <li>• Ensure fish passages are not disturbed</li> <li>• Minimal disturbance to bed and banks during construction</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>• Erosion and sediment control plans must be approved</li> <li>• Nutrient management or treatment must be approved</li> <li>• The impact on a waterway through plant and site facilities must be addressed in OHS &amp;E (Occupational Health Safety and Environment Plan)</li> <li>• Directional boring where practicable</li> <li>• Any damage to stream bed and banks to be rehabilitated through revegetation and rock beaching</li> <li>• Rock beach bridge abutments</li> <li>• The bottom of bridge decks must be 600mm above the top of the bank measured from the high water mark</li> <li>• Horizontal and vertical stream stability must be considered in the siting of bridge and culvert structures</li> </ul>

**TABLE 7: GUIDELINES FOR INTENSIVE ANIMAL INDUSTRIES**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Wastewater from farms is poorly treated and/or inappropriately applied to land</li> <li>• Possible pollution of groundwater</li> <li>• Stormwater containing contaminated run-off</li> <li>• Appropriate setback distances are not applied</li> <li>• Sediment transported off - site</li> <li>• Lack of suitability of site/soil for waste disposal</li> <li>• High concentrations in waterways immediately downstream of outfall.</li> <li>• Excessive nutrients leaving aquaculture farms due to poor feed design and management</li> <li>• Possible pollution of groundwater tables</li> <li>• Dairy sheds and processing plants</li> <li>• Tanning and related industries</li> <li>• Intensive piggeries</li> <li>• Aqueous wool scouring and carbonizing</li> </ul>	<p><b>Section 55 Referral:</b></p> <p><b>EPA</b> The following require an <b>EPA works approval</b> (licence needed only if they discharge):</p> <ul style="list-style-type: none"> <li>• Mammals i.e. piggeries, cattle feedlots with &gt;5,000 animals confined for agricultural production.</li> <li>• Livestock sale yards /holding pens with an annual through put &gt;10,000 animal units per year.</li> <li>• Fish farms and other edible aquatic cultivators with a discharge water flow rate of &gt;0.2ML/d.</li> </ul> <p><b>DEDJTR</b> - Minister for Department of Economic Development, Jobs Transport and Resources (DEDJTR)</p> <p>To use or develop land for a cattle feedlot</p> <p><b>G-MW, GBCMA and NECMA</b> If the site is located within a special water supply catchment area under the Catchment and Land Protection Act 1994, the relevant water authority under the Water Act 1989 and the Secretary to the Department administering the Catchment and Land Protection Act 1994</p> <p><b>Section 52 Referral:</b></p> <ul style="list-style-type: none"> <li>• The CMA and Water Supply Authorities would like to see all applications for intensive animal industries.</li> </ul>	<ul style="list-style-type: none"> <li>• Victoria Planning Provisions SPPF - Clause 17.06 Intensive animal industries and Clause 52.26</li> <li>• <i>Victorian Code for Cattle Feedlots</i> (EPA, 1995)</li> <li>• <i>Code of Practice: Piggeries</i> (EPA 1992)</li> <li>• <i>Victorian Code of Practice for Broiler Farms, (EPA 200)</i></li> <li>• <i>State Environment Protection Policy (Waters of Victoria, 1998.</i></li> <li>• EPA Pub. 168, <i>Guidelines for Wastewater Irrigation, 1991</i></li> <li>• EPA Pub 464 <i>Guidelines for Wastewater Reuse, 1996</i></li> <li>• EPA Pub 570 <i>Environmental Guidelines for Dairy Processing Industry, 1997</i></li> <li>• Dairy Shed Waste Management, 1993</li> <li>• Information can be obtained for Dairy Shed Waste Management at: <a href="http://www.environment.gov.au/...4cbf.../dairy-sheds-australia-paper16b.pdf">www.environment.gov.au/...4cbf.../dairy-sheds-australia-paper16b.pdf</a></li> <li>• Information regarding publications on intensive animal industries can be obtained from the EPA website <a href="http://www.epa.vic.gov.au">www.epa.vic.gov.au</a></li> <li>• <i>Minimum Setbacks from Waterways and Storages</i> (Water Authorities, 1999) - see <b>TABLE 12</b></li> <li>• <i>Environment Protection Act, 1970</i></li> <li>• <i>Water Act, 1989</i></li> </ul>	<p><b>Fundamental Principles &amp; Policy:</b></p> <ul style="list-style-type: none"> <li>• No intensive animal industry should impact on surface or ground water quality.</li> <li>• All waste should be treated in accordance with their relevant code of practice or EPA licence, and contained on site.</li> <li>• Land areas must be sufficient to ensure effluent disposal methods are achievable and not cause water and land degradation.</li> <li>• No net increase in nutrient loads to the catchment.</li> <li>• All effluent disposal systems must be located 100 metres from a waterway.</li> <li>• The retention of natural drainage corridors with a 30 metre wide vegetated buffer zone along waterways in accord with SPPF.</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>• All works must be in accordance with EPA works approval.</li> <li>• If no works approval is required Council must ensure that the following points are taken into consideration:             <ul style="list-style-type: none"> <li>• No discharge of waste beyond the boundaries of the premises.</li> <li>• Effluent storage ponds are to be constructed at least 100 metres from any waterway and should not go down to, or below, ground water levels.</li> <li>• Storage embankments must not be located in a floodway and must be above the 1 in 100 year flood level in all</li> </ul> </li> </ul>

**TABLE 7: GUIDELINES FOR INTENSIVE ANIMAL INDUSTRIES**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
	<ul style="list-style-type: none"> <li>EPA if activity has the potential to impact on water quality</li> </ul>		<p>other areas.</p> <ul style="list-style-type: none"> <li>A wastewater management plan must be prepared by a person qualified t</li> <li>A storm water management plan must be prepared</li> <li>An environmental management plan must be prepared</li> <li>Effluent ponds must have an impervious liner consisting of no less than 600 mm clay of maximum hydraulic conductivity <math>1 \times 10^{-9}</math> m/s or equivalent.</li> <li>All works must comply with EPA Pub. 168, <i>Guidelines for Wastewater Irrigation</i>, EPA Pub 464 <i>Guidelines for Wastewater Reuse</i> and EPA Pub 500 <i>Code of Practice for Small WWTP</i>.</li> </ul>

**TABLE 8: GUIDELINES FOR LAND FORMING AND LASER GRADING IN IRRIGATION AREAS**

Activities Affecting Natural Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Increases runoff</li> <li>• Blocks natural flood paths</li> <li>• Removal of flood storage area within an area</li> <li>• Diverts flood waters</li> <li>• Increased flood height</li> <li>• Impacts to adjoining property owners</li> <li>• Cumulative Impacts</li> <li>• Impacts on wetlands and waterways</li> <li>• Native vegetation removal</li> </ul> <p><b>Check Guidelines for Clearing of Native Vegetation – see TABLE 1</b></p>	<p><b>A Planning permit is required for earthworks within most zones, or associated within a Section 2 use, where:</b></p> <ul style="list-style-type: none"> <li>• Direction of existing drainage flow is changed</li> <li>• Point of drainage outfall over a property boundary is changed</li> <li>• Rate or volume of flow across a property boundary is changed</li> <li>• Discharge of saline groundwater is increased</li> </ul> <p><b>Exemptions:</b></p> <ul style="list-style-type: none"> <li>• Approved drainage schemes or approved drainage outfall</li> <li>• A G-MW drain</li> <li>• A registered Community Drainage Scheme</li> <li>• A private or municipal drain where the applicant is authorised and outfall formally approved</li> </ul> <p><b>CMA if in:</b></p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ),</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO).</li> </ul> <p>Unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</p> <p><b>Section 52 Referral:</b> CMA if flooding is suspected and G-MW</p>	<ul style="list-style-type: none"> <li>• Victoria Planning Provisions - SPPF - Clause 15.02</li> <li>• <i>Planning Controls for Earthworks in the Shepparton Irrigation Region</i> (G-MW &amp; GBCMA, June 1999)</li> <li>• <i>Shepparton Irrigation Region (SIR) Significant Drainage Line Plans</i> (G-MW &amp; GBCMA, April 1998)</li> <li>• <i>Water Act, 1989</i> - Section 16-21 - No unreasonable impacts to adjoining property owners</li> <li>• <i>Control of Works in Natural Drainage Systems</i> (G-MW &amp; CALPB, 1996)</li> <li>• Flood Overlay Maps</li> <li>• Drainage Course Declarations</li> </ul> <p><b>Provision of acceptable farm plans within irrigated areas require the following information to be submitted to assist assessment:</b></p> <ul style="list-style-type: none"> <li>• General layout plan</li> <li>• Natural surface levels to AHD</li> <li>• Cut and fill levels</li> <li>• Top &amp; bottom of bay elevations</li> <li>• Width and length of bays</li> <li>• Farm channel &amp; drainage details</li> <li>• Drainage outfall details</li> <li>• Tree locations</li> <li>• Re-use systems</li> <li>• Groundwater details</li> <li>• Effluent discharge</li> <li>• G-MW Full Supply levels (if</li> </ul>	<p><b>Principles &amp; Policy:</b></p> <ul style="list-style-type: none"> <li>• Earthworks that change the natural topography of the landscape and subsequently affect the natural flow of water across catchments.</li> <li>• Issues relating to works on natural drainage lines can be closely linked with Floodplain Management Practices, which are controlled by the Catchment Management Authorities.</li> <li>• Passive storage areas are characterised by low basins, backwaters, depressions, loops, etc, into which water will spill during a flood event, and which will provide flood detention storage capacity that moderates the flow through a system.</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>• Allow for sufficient “through” flow along natural drainage lines to the satisfaction of the Responsible Authority and the CMA.</li> <li>• Minimum reduction of 10% in passive storage area.</li> </ul>

**TABLE 8: GUIDELINES FOR LAND FORMING AND LASER GRADING IN IRRIGATION AREAS**

Activities Affecting Natural Drainage Lines	Statutory Planning Process	Planning Tools	Principles and Policies
	& NE-W if activity affects their assets.	applicable) • Easements or reserves	

**TABLE 9: GUIDELINES FOR ONSITE WASTEWATER MANAGEMENT SYSTEMS (<5,000 LITRES PER DAY)**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
<p><b>Septic tanks &amp; package treatment plants for rural dwellings &amp; subdivisions</b></p> <ul style="list-style-type: none"> <li>Systems installed in inappropriate areas where an impact can occur to waterways and groundwater through discharge of nutrients</li> <li>Systems installed where soil, slope, land size and/or rainfall are not conducive to sustainable effluent disposal.</li> <li>The lack of ongoing maintenance to ensure septic tank systems and package treatment plants are operating efficiently.</li> <li>High density of septic tanks in an area.</li> </ul> <p><b>See Guidelines for Wastewater Treatment Plants – see TABLE 9 &amp; TABLE 11</b></p>	<ul style="list-style-type: none"> <li>In accordance with the VPPs the rural, environmental rural, rural living and low density residential zones (LDRZ) must be capable of treating and retaining wastewater within the boundaries of each allotment if reticulated sewerage is not available.</li> <li>The minimum allotment size in these zones (LDRZ) is 0.4 ha (or 4,000m<sup>2</sup> or 1 acre), but other factors such as soil capability and terrain must also be considered.</li> <li>Councils are responsible for systems designed to discharge up to 5,000L effluent/day.</li> <li>Internal referrals should be given to Environmental Health Officers or the designated officer prior to the issuing of a planning permit to ensure lot sizes are capable of sustaining the effluent system.</li> <li>Council must refuse to issue a permit if a proposed system is not of a type approved by EPA, or the land size is insufficient to support an effluent disposal system.</li> </ul> <p><b>Section 55 Referral:</b></p> <ul style="list-style-type: none"> <li>To relevant water board or water supply authority where proposal involves septic tanks or small package treatment plants in a Special Water Supply Catchment Area listed in Schedule 5 of the <i>Catchment and Land Protection Act, 1994</i> and which supplies water to a</li> </ul>	<ul style="list-style-type: none"> <li>Address any Domestic Waste Water Management Plan approved by Local Government Authorities.</li> <li>DELWP – <i>Planning Permit applications in open potable water supply catchment areas</i>, November, 2012</li> <li>EPA – <i>Land Capability Assessment for Onsite Domestic Wastewater Management</i>, Publication 746.1, March 2003</li> <li>MAV – <i>Land Capability Assessment Framework</i>, January 2014.</li> <li>AS/NZS 1547:2012 <i>Onsite Domestic Wastewater Management</i></li> <li><i>Code of Practice Onsite Wastewater Management</i> Publication No. 891.3 February 2013</li> <li><i>Environment Protection Act, 1970</i>, Part IXB.</li> <li>State Environment Protection Policy – (Waters of Victoria, 2003)</li> <li>Local Laws or S173 Agreements pertaining to the land.</li> <li><i>Water Act, 1989</i></li> <li><i>Minimum Setbacks from Waterways and Storages</i> (Water Authorities, 1999) - see <b>TABLE 12</b></li> </ul>	<p>Council should satisfy itself that:</p> <ul style="list-style-type: none"> <li>Applications for the Installation of septic tanks must be lodged with the local Council.</li> <li>Adequate land review and land capability assessment are done prior to rezoning and subdivision.</li> <li>Lot sizes are capable, and of adequate size, to treat and retain wastewater within allotment boundary.</li> <li>Adequate information is received by council to assess application and clear information of land features where system will be located is provided.</li> <li>Effluent treatment and disposal is an approved EPA system and has a Certificate of Approval.</li> <li>Ongoing wastewater management is feasible and achievable.</li> <li>Includes an ongoing management and monitoring program.</li> <li>Systems greater &gt;5,000 litres/day require an EPA Works Approval and Licence.</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>Onsite wastewater management system must be located and operated in accordance with the current EPA Code of Practice – Onsite Wastewater Management.</li> <li>Septic tanks, including package treatment plants must be a system approved by the Environment Protection Authority.</li> <li>The premises owner must:</li> </ul>

**TABLE 9: GUIDELINES FOR ONSITE WASTEWATER MANAGEMENT SYSTEMS (<5,000 LITRES PER DAY)**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
	<p>domestic supply.</p> <ul style="list-style-type: none"> <li>• If a proposal involves an effluent disposal system within the required setbacks as listed in Table 12</li> </ul> <p><b>CMA</b> if in:</p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ),</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO).</li> </ul> <p>Unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</p>		<ul style="list-style-type: none"> <li>• comply with the requirements of EPA and any planning permit conditions</li> <li>• undertake an inspection and maintenance program in accordance with the system manufacturer's specifications and EPA Publication - <i>Code of Practice Onsite Wastewater Management Publication No. 891.3 February 2013</i></li> <li>• keep a copy of the system manufacturer's specifications for maintenance and inspection of the system on-site at all times;</li> <li>• undertake annual maintenance by a person or company experienced or familiar with the operation of the system;</li> <li>• maintain a record of maintenance, monitoring, upgrades and inspections carried out on the system;</li> <li>• desludge the tanks once every three (3) years (EPA).</li> </ul>

**TABLE 10: GUIDELINES FOR WASTEWATER TREATMENT PLANTS > 5000L/DAY**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Wastewater treatment plants &gt; 5,000L/day</li> <li>• Festivals</li> <li>• Wineries and distilleries</li> <li>• Subdivision</li> <li>• Systems installed in inappropriate areas where impact to waterways and groundwater can occur through nutrient discharge.</li> <li>• Systems installed where soil, slope, land size and rainfall are not conducive to sustainable effluent disposal.</li> <li>• The lack of monitoring and ongoing maintenance to ensure wastewater treatment plans are operating efficiently.</li> <li>• Insufficient land area to support disposal of wastewater.</li> <li>• Inadequately designed, installed and maintained systems</li> </ul>	<p><b>Section 55 Referral:</b></p> <p><b>Environment Protection Authority (EPA) where:</b></p> <ul style="list-style-type: none"> <li>• EPA Works Approval is required</li> <li>• A licence to discharge is required</li> <li>• A licence amendment is required</li> </ul> <p><b>DELWP</b></p> <ul style="list-style-type: none"> <li>• If native vegetation is to be removed</li> </ul> <p><b>CMA</b> if in:</p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ),</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO). unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</li> </ul> <p><b>Section 52 Referrals:</b></p> <p>To relevant water supply authority if wastewater treatment plant is to be located adjacent to a waterway, major drainage line or water storage facility.</p>	<ul style="list-style-type: none"> <li>• EPA Scheduled Premises &amp; Exemption Regulations</li> <li>• EPA Pub 464 <i>Guidelines for Wastewater Reuse</i>, 1996</li> <li>• EPA Pub 500 <i>Code of Practice for Small WWTP</i> (June 1997)</li> <li>• EPA Pub. 168, <i>Guidelines for Wastewater Irrigation (1991)</i></li> <li>• EPA Pub. 473, <i>Managing Sewage Discharge to Inland water's</i> (1995)</li> <li>• <i>Environmental Protection Act, 1970</i></li> <li>• State Environment Protection Policy (SEPP); Groundwater's of Victoria (1997)</li> <li>• State Environment Protection Policy (SEPP) – Waters of Victoria, 1988</li> <li>• Best Practice Environmental Management Series for numerous industries (See Appendix 1)</li> <li>• AS/NZ 1547:2012, Onsite Domestic Wastewater Management</li> <li>• Section 173 agreements</li> <li>• Preliminary Nutrient Guidelines for Victorian Inland Streams (June 1995)</li> <li>• <i>Water Act, 1989</i></li> <li>• National Water Quality Management Strategy – Agriculture and Resource Management Council of Australia and New Zealand, ANZECC;             <ul style="list-style-type: none"> <li>• Effluent Management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Protect surface and groundwater.</li> <li>• Ensure the land area is capable of supporting a wastewater treatment and disposal facility.</li> <li>• To have land disposal of wastewater that is consistent with a water balance for the site and proposed method of disposal.</li> <li>• Ensure that long term accumulation of salt &amp; nutrients does not occur.</li> <li>• Preference is 100% reuse, sewer connection, land irrigation, if not possible discharge to water after tertiary treatment.</li> <li>• Not all wastewater will be tertiary treated prior to disposal</li> <li>• All works must be in accordance with EPA Works Approval.</li> <li>• If no Works Approval is required council must ensure that the following points are taken into consideration:             <ul style="list-style-type: none"> <li>- Effluent ponds must have an impervious liner or be of no less than 600mm clay of maximum hydraulic conductivity <math>1 \times 10^{-9}</math>m/s, or equivalent.</li> <li>- Disposal is in accordance with the appropriate nutrient balance for the wastewater and the specific soil conditions at the the site.</li> <li>- All works must comply with EPA Pub. 168, '<i>Guidelines for Wastewater Irrigation</i>,' EPA Pub 464 '<i>Guidelines for Wastewater Reuse</i>' and EPA Pub 500 '<i>Code of Practice for Small WWTP</i>'.</li> <li>- The treatment plant must be</li> </ul> </li> </ul>

**TABLE 10: GUIDELINES FOR WASTEWATER TREATMENT PLANTS > 5000L/DAY**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
		<p>Guidelines for Wineries and Distilleries (1995)</p> <ul style="list-style-type: none"> <li>• Draft Effluent Management Guidelines for Dairy Processing Plants (1995)</li> <li>• Draft Rural Land uses and Water Quality (1996)</li> <li>• Draft Implementation Guidelines (1995)</li> <li>• Draft Effluent Management Guidelines for Tanning and Related Industries (1995)</li> <li>• Draft Effluent Management Guidelines for Dairy Sheds (1995)</li> <li>• Draft Effluent Management Guidelines for Intensive Piggeries (1995)</li> <li>• Draft Effluent Management Guidelines for Aqueous Wool Scouring and Carbonizing (1995)</li> </ul>	<p>operated in accordance with any current Environment Management Plan approved by EPA.</p> <ul style="list-style-type: none"> <li>- A monitoring program must be prepared and the results submitted annually to EPA.</li> <li>- Disposal does not create long term sodic or saline soils.</li> <li>- Any disposal area, including irrigation must be developed in accordance with a whole farm plan approved by G-MW.</li> <li>- The disposal area, including irrigation is to be located more than 100 metres from any waterway.</li> <li>- An annual water balance must be calculated to determine if the rate of seepage to groundwater is greater than <math>1 \times 10^{-9}</math> m/sec. This will indicate the necessity for liner repair.</li> <li>- Seepage to groundwater may be monitored through the installation of bores if deemed necessary.</li> </ul>

**TABLE 11: GUIDELINES FOR URBAN DEVELOPMENT**

Activities Affecting Water Quality	Statutory Planning Process	Planning Tools	Principles and Policies
<ul style="list-style-type: none"> <li>• Inappropriate management of waste water</li> <li>• Sediment and nutrient runoff</li> <li>• Inadequate stormwater management</li> <li>• Solid waste disposal</li> <li>• Chemicals</li> </ul>	<p><b>Section 55 Referral:</b></p> <p>Relevant Water Corporation</p> <ul style="list-style-type: none"> <li>• Subdivisions (&gt;2 lots)</li> </ul> <p><b>CMA</b> if in:</p> <ul style="list-style-type: none"> <li>• Urban Floodway Zone (UFZ)</li> <li>• Land Subject to Inundation Overlay (LSIO)</li> <li>• Flood Overlay (FO) unless in accordance with an incorporated Local Floodplain Development Plan or listed as exempt in an Overlay Schedule.</li> </ul> <p><b>Section 52 Referral:</b></p> <ul style="list-style-type: none"> <li>• CMA require notice of industrial development where flooding is suspected.</li> <li>• Relevant water supply authority</li> </ul>	<ul style="list-style-type: none"> <li>• Victoria Planning Provisions</li> <li>• <i>Best Practice Environmental Management Guidelines for Urban Stormwater</i>, (CSIRO, 1999).</li> <li>• EPA Pub 275, <i>Construction Techniques for Sediment Pollution Control</i> (1991).</li> <li>• EPA Pub 480, <i>Environmental Guidelines for Major Construction Sites</i> (1996)</li> <li>• <i>Water Act, 1989</i></li> <li>• <i>Minimum Setbacks from Waterways and Storages</i> (Water Authorities, 1999) - see <b>TABLE 12</b></li> </ul>	<ul style="list-style-type: none"> <li>• Urban development should be designed to consider the environmental qualities of an area.</li> <li>• No development should impact on water quality, during either the development or construction phase</li> <li>• Sediment and nutrient management will be a key to a successful development</li> <li>• All development to be in accordance with Stormwater Management Plans</li> <li>• No net increase in sediment from the catchment</li> <li>• Not on slopes greater than 20% (1 in 5).</li> <li>• The retention of natural drainage corridors with a 30 metre wide vegetated buffer zone along waterways in accord with SPPF.</li> </ul> <p><b>General Conditions Only:</b></p> <ul style="list-style-type: none"> <li>• All allotments should be connected to reticulated sewerage and water if available.</li> <li>• Stormwater Management Plans must be prepared prior to approval.</li> <li>• Construction &amp; operation should follow relevant EPA guidelines.</li> <li>• A minimum 30 metre of undisturbed vegetation is required along all waterways.</li> <li>• Construction works must be revegetated and left in a stable condition to prevent soil erosion.</li> <li>• Floor height must be located above the 100-year ARI flood level of all waterways.</li> </ul>

**TABLE 12: Minimum Setbacks from Waterways and Storages**

These are minimum setbacks in relation to the protection of water quality and aesthetic values only.

There may be other reasons that exclude buildings near waterways, ie severe flooding.

(Taken as distance from the top of the bank, or high water mark if there is no bank, unless noted otherwise)

TYPE OF WATERWAY	SEPTIC TANKS <sup>a</sup>	BUILDINGS <sup>b</sup>	BUFFERS ALONG WATERWAYS <sup>d</sup>
Heritage River <sup>1</sup> <b>Example: Goulburn River</b>	100 metres	50 metres minimum	30 metres
Storage, natural lake or wetland. <b>Example: Lake Eildon, Lake Nagambie, Kinnaird's Wetland</b>	100 metres	<i>The greater of:</i> <ul style="list-style-type: none"> <li>• 50m from Full Supply Level or</li> <li>• 300mm above the 100-year ARI flood level</li> </ul>	30 metres
Domestic water supply <sup>g</sup> channel <b>Example: Aqueducts</b>	200 metres	50 metres minimum	30 metres
Domestic water supply <sup>g</sup> storage <b>Example: Violet Town</b>	300 metres	100 metres	30 metres
Waterway <sup>e</sup> in a special water supply <sup>2</sup> catchment area <b>Example: Delatite River</b>	100 metres	30 metres	30 metres
Any waterway <sup>e</sup> outside a special supply catchment and not a heritage river <b>Example: Broken Creek</b>	60 metres	30 metres	30 metres
G-MW Drain/ Community Surface Drain <b>Example: Deakin Main Drain, Ardmona Drain II</b>	100 metres	30 metres <sup>f</sup>	N/A
G-MW Irrigation Supply Channel <b>Example: Central Goulburn Channel No. 7</b>	60 metres	30 metres <sup>f</sup>	N/A

<sup>a</sup> Minimum requirement under Code of Practice Onsite Wastewater Management Publication No. 891.3 February 2013 and State Environment Protection Authority (Waters of Victoria)

<sup>b</sup> Includes dwellings, shed, tourist accommodation, and auxiliary structures, eg carports and decking.

<sup>d</sup> Minimum width of undisturbed vegetation along all waterways (Clause 4.02-1 of the SPPF- Victoria Planning Provisions)

<sup>e</sup> Section 3 of the *Water Act, 1989*

<sup>f</sup> G-MW recommendation

<sup>g</sup> Water used for human consumption

<sup>1</sup> *Heritage Rivers Act, 1992*

<sup>2</sup> *Catchment and Land Protection Act, 1994*

**Supporting Information for Minimum Setbacks from Waterways and Storages**

**Special Water Supply Catchment Areas in the G-MW and CMA areas (Catchment and Land Protection Act 1994):**

<b>Goulburn Broken CMA</b>	<b>North Central CMA</b>	<b>North East CMA</b>
Lake Nillahcootie	Avoca Town Water Supply	Bakers Gully (Bright)
Upper Goulburn	Cairn Curran	Barambogie Creek (Chiltern)
Lake Eildon Environs	Creswick	Buckland River
Upper Delatite (Mansfield) Water Supply	Crusoe Group Reservoirs (Bendigo)	Buffalo River (Lake Buffalo)
Kilmore	Eppalock	Diddah Diddah Creek (Springhurst)
Honeysuckle Creek (Violet Town)	Loddon River (Laanecoorie)	Fifteen Mile Creek (Glenrowan)
Seven Creeks (Euroa)	McCallum Creek	King River (Lake William Hovell)
Mollison Creek (Pyalong)	Spring Creek Reservoirs (Bendigo)	Lake Hume (Victorian section)
Sunday Creek (Broadford/Kilmore)	Tullaroop Reservoir	Nine Mile, Clear and Hurdle Creeks
Nine Mile Creek (Longwood)		Ovens River (Bright)
Ryans Creek (Benalla)		Ovens River (Wangaratta)
Mollison Creek (Pyalong)		Upper Kiewa
		Barambogie Creek (Chiltern)

**Domestic Water Supply Storages (i.e. for supply to urban systems only):**

Storages managed by North East Region Water Authority, Goulburn Valley Water, Coliban Water and Lower Murray Water.

**Domestic Water supply Channels (i.e. for supply to urban systems only):**

Open supply channels managed by North Eastern Region Authority, Goulburn Valley Water, Coliban Water and Lower Murray Water.

**Heritage Rivers (Heritage Rivers Act 1992):**

Goulburn River      Howqua River  
 Ovens River        Mitta Mitta River  
 Big River

**References:**

Environment Protection Agency, *Code of Practice Onsite Wastewater Management Publication No. 891.3 February 2013*  
 Environment Protection Agency, *State Environment Protection Policy (Waters of Victoria) (1988)*  
 Environment Protection Act 1970 (Vic)  
 Water Act 1989 (Vic)  
 Heritage Rivers Act 1992 (Vic)  
 Catchment and Land Protection Act 1994 (Vic)

**Prepared in 2001 by Ellen Hogan, Strathbogie Shire Council and Mark Bailey, Goulburn-Murray Water following consultation with:**

Goulburn Broken Catchment Management Authority  
North East Catchment Management Authority

Goulburn-Murray Water  
Goulburn Valley Water

**Updated in 2016 by Ellen Hogan in conjunction with Goulburn Murray Water and North East CMA following consultation: with:**

Goulburn Broken Catchment Management Authority  
North East Catchment Management Authority

Goulburn-Murray Water  
Goulburn Valley Water

Environment Protection Authority (NE)  
Department of Environment, Land, Water & Planning (Hume Region)

North East Water  
Department of Economic Development, Jobs, Transport and Resources,  
Government of Victoria, Victoria, Australia.