



# Whole Farm Plan Guidelines for Earthworks Controls

In the Shire of Campaspe, City of Greater Shepparton and Shire of Moira





These Guidelines were prepared by Greater Shepparton City Council, Campaspe Shire Council and Moira Shire Council, through a partnership arrangement with the Municipal Catchment Coordinator (Goulburn Broken Catchment Management Authority), Goulburn-Murray Water and the North Central Catchment Management Authority, in consultation with the Irrigation Surveyors and Designers Group.

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## Purpose of this document

This document supports the 'Earthworks Controls in the Shire of Campaspe, City of Greater Shepparton and Shire of Moira' (December 2022), an incorporated document pursuant to Section 6(2)(j) of the *Planning and Environment Act 1987*. These Guidelines clarify the process and requirements of Whole Farm Plan approval as a mechanism to ensure earthworks do not impact negatively on a range of factors.

# Background

'Earthworks' refer to any change to the natural or existing topography of the land, including land-forming, laser grading, levee banks, lanes, tracks, water storages, surface and sub-surface drains and any associated structures.

Earthworks may be undertaken as part of farm activities to improve irrigation efficiency through upgrading and changing channel delivery or installing an irrigation reuse system or to improve surface drainage or assist with preventing rising watertables and salinity.

Earthworks can cause issues due to their potential to alter the direction or rate of flow of water across a property boundary, change the discharge point of water, increase the discharge of saline groundwater, or adversely impede the free passage and temporary storage of floodwater. These potential issues are dealt with in the *Water Act 1989*.

Earthworks also have potential to cause adverse impacts to sites of Aboriginal cultural heritage sensitivity and areas of environmental significance (e.g. remnant trees, shrubs, grasslands and wetlands) if not properly planned.

To manage these risks, the schedule for the rural zones and some Land Management Overlays have triggers for permits for earthworks or works. Whole Farm Planning provides an alternate approval process for earthworks, so that Planning Permits are not always required. Councils have developed an incorporated document ([GC173 Earthworks Controls in the Shire of Campaspe, City of Greater Shepparton and the Shire of Moira 2022](#)) and these Guidelines to outline this process.

Preparation and implementation of Whole Farm Plans is encouraged so that:

- individual properties are compatible with regional and district drainage systems;
- salinity, nutrient control, management of biodiversity assets and cultural heritage sites are integrated with other land and water management practices;
- potential impacts of proposed earthworks or works are adequately addressed; and
- applicable legislative requirements have been adequately addressed.

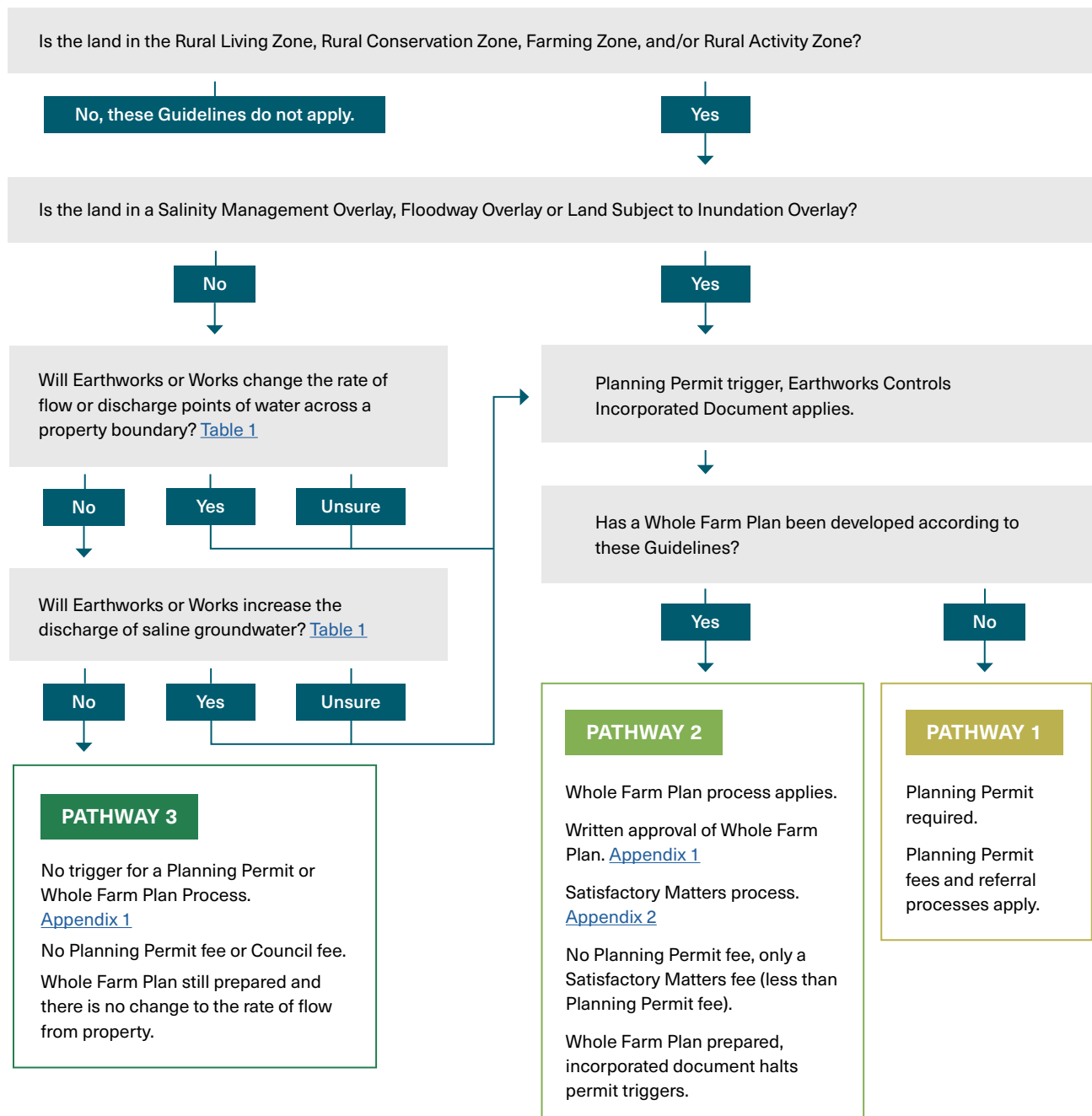


# Approval pathways

Where earthworks\* or works are to be undertaken, one of the following approval pathways will apply:

1. Planning Permit;
2. Whole Farm Plan exemption through Council 'Satisfactory Matters' process; or
3. No Planning Permit trigger.

## Applicant wants to do earthworks or works in Shire of Campaspe, Shire of Moira or City of Greater Shepparton:



\* Earthworks are defined within the Victorian Planning Provisions under Clause 73.01 General Terms as: land forming, laser grading, levee banks, raised access roads and tracks, building pads, storage embankments, channel banks and drain banks and associated structures.



**TABLE 1**  
**Pathway requirements**

	PATHWAY 3	PATHWAY 2	PATHWAY 1
<b>Council approval required</b>	No	Yes	Yes
<b>Planning Permit required</b>	No	No	Yes
<b>Public notice provisions apply</b>	No	No	Yes
<b>Standard form to determine pathway</b>	Yes ( <a href="#">Appendix 1</a> )	Yes ( <a href="#">Appendix 1</a> )	Yes ( <a href="#">Appendix 1</a> )
<b>Written approval from authorities</b>	No	Yes	Yes
<b>Approximate timeframe</b>	?	?	60 days*
<b>Approximate cost</b>	No fee	Approximately \$300-\$400*	>\$1800**

\* Please note that the indicated timeframes may be subject to change depending on the nature of the application and the planning process required to be undertaken.

\*\* Current estimate only, fees subject to State fee changes.

# Whole Farm Plan requirements

A Whole Farm Plan provides a mechanism for on-farm earthworks or works to be planned holistically. It is a blueprint for farm development that considers all aspects of the physical layout. Whole Farm Plans must be prepared by a 'suitably qualified and experienced' Irrigation Surveyor & Designer (see [Appendix 6](#)) with input from the landholder and should include associated Agriculture Victoria irrigation staff.

All required information must be provided on the Whole Farm Plan and associated documents (not listed in 'conditions').

The following must be addressed and/or shown through the development of a Whole Farm Plan:

- a. Design mitigation measures relevant to the *Water Act 1989* and the Earthworks Planning Controls Incorporated Document ([Table 2](#));
- b. Design mitigation measures that address other legislative requirements ([Table 3](#));
- c. Existing conditions of the property ([Table 4](#)); and
- d. Proposed design for the property ([Table 5](#)).



TABLE 2

**Design mitigation measures – relevant to the *Water Act 1989* and the Earthworks Controls Incorporated Document**

This table outlines the design mitigation measures that need to be demonstrated in the design of a Whole Farm Plan to determine which approval pathway applies (as per Flowchart page 4).

Consideration	Practical example of why issue may occur	Design mitigation measures	Further information
<b>Discharge point of water across a property boundary must not change.</b>	<p>Earthworks or works can significantly alter the direction of drainage and may result in a flow across a property boundary that is 'not reasonable'.</p> <p>Earthen banks that are not designed correctly may result in the intercepting of overland flows leading to the concentration or redirection of the discharge point of water across a boundary.</p>	<ul style="list-style-type: none"> <li>Fully functioning drainage system that retains all irrigation water.</li> <li>Earthen banks must be built to a height which does not redirect flows to another area.</li> <li>Laser grading must not result in a change to the discharge point.</li> <li>Storage facilities, farm drains and channels must be installed and functioning before any other works are undertaken and they must be in a maintained condition.</li> </ul>	
<b>Must not be any change in the rate of flow or volume of water across a property boundary that is 'not reasonable'.</b>	<p>Earthworks such as laser grading are designed to get water off bays to reduce inundation. Without mitigation measures this will increase the rate or volume of flow of water leaving the property.</p>	<ul style="list-style-type: none"> <li>Volume of excavated material must equal or exceed the volume of fill material.</li> <li>Works must not reduce storage.</li> <li>Works must be carried out with regard to future drainage developments and the capacity of existing drainage systems.</li> <li>Avoid raised embankments for farm dams located on the deeper parts of the floodplain.</li> <li>Control the rate of run-off so that water is not accelerated down the Catchment.</li> <li>Irrigation intensity and storage capacity must be balanced to manage system design.</li> <li>Any surface irrigated area greater than 10ha must have a suitably sized reuse system (minimum storage = 0.038ML/1ha, maximum storage = 0.1ML/1ha).</li> <li>Installation and effective use of a drainage reuse system to ensure any net runoff does not exceed natural limits.</li> </ul> <p>Where proposed runoff exceeds the allowable runoff, it may be approved subject to:</p> <ul style="list-style-type: none"> <li>A storage capacity equal to the excess runoff;</li> <li>Reduction in proposed irrigation area to meet allowable runoff limit; or</li> <li>Adjustment to the storage capacity and area irrigated to meet allowable runoff limit.</li> </ul>	<p>Allowable runoff = existing runoff x runoff increase factor.</p> <p>Existing runoff = (Total area x 0.15) + (Irrigated area x 0.20) ML.</p> <p>Runoff increase factor = 1.20 (inside irrigation area) or 1.10 (outside irrigation area).</p> <p>Note: Permeable soils are considered to produce 0 runoff.</p>



Consideration	Practical example of why issue may occur	Design mitigation measures	Further information
<p><b>Must not result in an increase in the discharge of saline groundwater that is 'not reasonable'.</b></p>	<p>Inadequate drainage reduces ability to remove rainfall on irrigated property.</p> <p>Pondage of irrigation water on bays increases groundwater accessions.</p>	<ul style="list-style-type: none"> <li>• All parts of the property must have some form of drainage.</li> <li>• Use 'water-on' 'water-off' design principles to reduce incidence of pondage of irrigation water on bays. This includes laser grading and effective drainage to reduce water logging and the risk of salinisation.</li> <li>• For any water storages:               <ul style="list-style-type: none"> <li>– a test hole must be dug to ensure that groundwater does not leak and that the soil is consistent to the depth required;</li> <li>– completed water storage must not interact with the watertable; and</li> <li>– bed and banks must be constructed to minimise accessions to groundwater with a permeability of 10-9m/sec (0.09mm/day) or less.</li> </ul> </li> <li>• Property must not exceed its maximum Water Use Limit.</li> </ul>	<p>If the property exceeds its Maximum Water Use Limit under the Salinity Guideline, the proponent must contact the GMW Water Administration group to License accordingly.</p>

Consideration	Practical example of why issue may occur	Design mitigation measures	Further information
<p><b>Must not adversely impede the free passage and temporary storage of floodwater.</b></p>	<p>Poorly planned works can increase the frequency and magnitude of flooding on adjacent properties by obstructing flood flow, increasing level, duration and extent of upstream flooding, diverting flows, flooding lands not otherwise at risk; and removing flood storage, in which case flows may increase and cause increased flooding downstream.</p> <p>Poorly planned works can lead to negatively impacts on the water holding function of wetlands and depressions, environmental risk and landholder disputes.</p> <p>Removing floodplain storage can impact on storage capacity of the Catchment.</p>	<ul style="list-style-type: none"> <li>• Fencing within the Floodway Overlay must be post and wire or post and rail farm-type fencing only.</li> <li>• All laneways are to be constructed no higher than finished adjacent bay levels.</li> <li>• If an applicant seeks to modify flow paths and floodplain areas, compensatory earthworks must be designed to compensate for any loss of flood storage by a factor of 1.3 (volume of cut will exceed the volume of fill by 30%).</li> <li>• Excavations to deliver this storage must provide for the equivalent hydraulic capacity and be: <ul style="list-style-type: none"> <li>– self-draining; and</li> <li>– within the development site.</li> </ul> </li> <li>• If a channel bank or laneway blocks the natural depression, a clear opening or suitably sized culvert must be provided to allow high flows to follow the natural drainage course unobstructed:</li> <li>• Where works are in a passive storage area, filling must not occupy more than 10% of the natural cross-sectional volume of this area.</li> <li>• Where an active flow path or Drainage Course Declaration (DCD) exists within the property, the following conditions must be designed for: <ul style="list-style-type: none"> <li>• Landform filling must be less than 10% of the natural cross-sectional volume of the active flow path or DCD;</li> <li>• Sumps and farm drains must be constructed without banks. All excess material must not be stockpiled within the active flow path or DCD;</li> <li>• Tree plantations within the confines of the active flow path or DCD must be kept at a stem density of less than 40 trees/ha; and</li> <li>• The end of bays within the active flow path or DCD must form a continuous grade across each bay through the property to allow for unobstructed natural flows.</li> </ul> </li> <li>• Any proposed dam must not block the natural drainage course. The dam must be either relocated, or an equivalent waterway to match the existing capacity of the depression must be provided.</li> </ul>	<p>Detailed information including best practice guidelines for works and associated structures can be found in '<a href="#">Floodplain Management Guidelines for Whole Farm Plans in the Shepparton Irrigation Region</a>'.</p> <p>Detailed information regarding control of earthworks or works in natural drainage lines to ensure 'reasonable flow' is maintained found in 'Control of Works and Activities in Natural Drainage Systems Policy Paper' (SKM, 1997).</p> <p>Outfalls to a natural waterway must be designed, installed, and maintained in accordance with the Technical guidelines for waterway management.</p>

TABLE 3

**Design mitigation measures – other applicable legislation**

Relevant legislative requirements must be considered and demonstrated during the development of a Whole Farm Plan however separate processes (permits, approvals) may still be required, as outlined in the following table. Refer to [Appendix 2](#) for approval pathway and contact information in relation to the following legislation.

Legislative requirement	Relevant legislation	Design mitigation measures
<p><b>Must not create or alter access to a road in Road Zone, Category 1 or land in a Public Acquisition Overlay for a Category Road.</b></p>	<p><b>Roads Management Act 2004</b></p> <p>Clause 52.29 of the Planning Scheme includes not creating or altering access to a road in Road Zone Category 1 or land in a Public Acquisition Overlay for the purpose of acquiring a Category 1 road.</p>	<ul style="list-style-type: none"> <li>• A person must not construct an access point to a freeway without the written consent of the managing authority (Transport for Victoria) under Clause 1 of Schedule 2.</li> <li>• A person must not construct or change a physical means of entry or exit for traffic between adjacent land and a controlled access road without first obtaining a decision under Clause 2 of Schedule 2 which authorises the construction or change.</li> <li>• Subject to subsection (2), a person must not conduct any works in, on, under or over a road without the written consent of the coordinating road authority to the conduct of the proposed works.</li> </ul>
<p><b>Comply with the Aboriginal Heritage Act 2006, including ensuring a Cultural Heritage Management Plan (CHMP) is required or evidence that a CHMP is not required under the Aboriginal Heritage Regulations 2018.</b></p>	<p><b>Aboriginal Heritage Regulations 2018</b></p> <p><b>Aboriginal Heritage Act 2006</b></p>	<ul style="list-style-type: none"> <li>• Council as a statutory authority must ensure that a CHMP is not required under the <i>Aboriginal Heritage Regulations 2018</i> and <i>Aboriginal Heritage Act 2006</i>.</li> <li>• High impact works (e.g. digging &gt;60cm) on a property must not be planned within an area of cultural heritage sensitivity or a sandhill.</li> <li>• Where aerial evidence or other imagery indicates the prior setting out of the entire activity area for irrigation (significant disturbance), this may be sufficient evidence that a CHMP is not required.</li> <li>• A CHMP may be required where the activity area (area of disturbance) associated with a utility installation such as a pipeline or channel (high impact activity) is within an area of cultural heritage sensitivity or within the buffer zone of a registered cultural heritage place and that area has not been subject to prior significant ground disturbance.</li> <li>• Due diligence is required to ensure that works on a Whole Farm Plan minimises potential for disturbance (<i>Aboriginal Heritage Regulations 2018</i> and <i>Aboriginal Heritage Act 2006</i> apply regardless of approval of a Whole Farm Plan e.g. stop work action if any cultural heritage found).</li> </ul>
<p><b>A permit is usually required to remove, destroy or lop native vegetation (living and dead trees, shrubs, herbs and grasses) under the native vegetation removal regulations.</b></p>	<p>Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017)</p>	<ul style="list-style-type: none"> <li>• Identify any proposed removal of native vegetation and design to avoid and minimise loss in accordance with the three-step process in Clause 52.17 of the planning scheme.</li> <li>• Pre-application is recommended with Council prior to seeking endorsement of a Whole Farm Plan which identifies proposed native vegetation removal.</li> <li>• Illustrate any proposed removal of native vegetation on the Whole Farm Plan (e.g. alive/dead, planted/remnant – terrestrial, trees, shrubs and grasses and wetlands).</li> <li>• Although a separate permit process is required for the removal of native vegetation, the requirement for avoid/minimise must be planned in the design of the Whole Farm Plan.</li> </ul>

TABLE 4

**Existing features of the property**

The following table outlines the existing features of a property that must be shown on a Whole Farm Plan to meet approval requirements.

Existing features		Additional requirements
<b>General information</b>	<input type="checkbox"/> Landholder details, name and address <input type="checkbox"/> Date of survey and date of final design <input type="checkbox"/> Designer (name and company)	
<b>Property and location details</b>	<input type="checkbox"/> Land title details i.e. parish, crown allotment/s <input type="checkbox"/> Property size (ha) and area of dryland/irrigated land (ha) <input type="checkbox"/> Property boundary and road names <input type="checkbox"/> Scale bar, legend and north indicator	
<b>Overlays</b>	All relevant overlays including but not limited to: <input type="checkbox"/> Salinity Management Overlay <input type="checkbox"/> Floodway Overlay <input type="checkbox"/> Land Subject to Inundation Overlay <input type="checkbox"/> Environmental Significance Overlay	<ul style="list-style-type: none"> <li>• Referral to DEECA.</li> <li>• Referral to Floodplain Authority (CMA).</li> </ul>
	<input type="checkbox"/> Cultural heritage sensitivity layer	<ul style="list-style-type: none"> <li>• May require a Cultural Heritage Management Plan prior to undertake a high impact activity in an area of Aboriginal heritage sensitivity.</li> </ul>
<b>Easements, reserves, and public land</b>	<input type="checkbox"/> Road crossings	<ul style="list-style-type: none"> <li>• If earthworks or works impact, referral to relevant Road Management Authority (<a href="#">Table 2</a>).</li> </ul>
	<input type="checkbox"/> Goulburn-Murray Water channels and drains	<ul style="list-style-type: none"> <li>• Any work on GMW reserves and easements require a Private Works Licence. Form 130 - Private irrigation works on <a href="#">GMW land licensing – Goulburn-Murray Water</a>.</li> <li>• <a href="#">Appendix 3</a> – Additional Goulburn-Murray Water requirements for a Whole Farm Plan.</li> </ul>
	<input type="checkbox"/> Essential services (power lines, both overhead and underground, gas)	<ul style="list-style-type: none"> <li>• If earthworks or works impact, may require referral to relevant authority.</li> </ul>

Existing features	Additional requirements
<b>Natural and cultural features</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Rivers, creeks and wetlands</li> <li><input type="checkbox"/> Remnant native vegetation (including dead trees)</li> <li><input type="checkbox"/> Natural drainage lines</li> <li><input type="checkbox"/> Soil map</li> </ul>	<ul style="list-style-type: none"> <li>• Works on waterways may require a permit from the Catchment Management Authority.</li> <li>• New dams on a waterway require a licence from GMW.</li> <li>• Buildings and works must be set back 30m from a designated waterway.</li> <li>• All land within waterway is to be set aside for waterway protection.</li> <li>• Any proposed removal must follow separate Council permit process.</li> <li>• Must not be altered, refer to 'Control of Works and Activities in Natural Drainage Systems Policy Paper' (SKM, 1996).</li> </ul>
<b>Infrastructure (non-irrigation)</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Laneways, fences and stock troughs</li> <li><input type="checkbox"/> Buildings – houses, dairy, sheds</li> <li><input type="checkbox"/> Levee banks (public and private)</li> </ul>	
<b>Infrastructure (irrigation)</b> <p>Water supply, storage and drainage:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> GMW outlets, channels and channel numbers</li> <li><input type="checkbox"/> Bore location and number</li> <li><input type="checkbox"/> Pipeline location</li> <li><input type="checkbox"/> Farm dams and sumps and their volumes (ML)</li> <li><input type="checkbox"/> Drainage diversions (ML/day)</li> <li><input type="checkbox"/> Drains (GMW, DCD, etc) and drainage inlets.</li> </ul> <p>Areas already laser graded:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Number of bays and bay widths (m)</li> <li><input type="checkbox"/> Irrigated area (ha)</li> <li><input type="checkbox"/> Level of top and bottom and grade of bays</li> <li><input type="checkbox"/> Existing drain bed levels and connection to reuse system</li> <li><input type="checkbox"/> Existing structures to be retained</li> <li><input type="checkbox"/> Existing channel dimensions (bed &amp; bank elevations, bed width).</li> </ul>	

TABLE 5

**Proposed design features**

The following table outlines the design features that must be shown on a Whole Farm Plan to meet approval requirements and completed by a suitable qualified Whole Farm Plan designer.

Feature	Information required	Reference
<p><b>Survey design information</b></p> <p><input type="checkbox"/> Detailed irrigation system layout and specifications</p>	<ul style="list-style-type: none"> <li>• Spot heights of grid points (40 m grid or less for survey)</li> <li>• Elevations to AHD</li> <li>• Contours</li> <li>• Benchmark and elevation used for survey</li> <li>• Earthworks schedule (all proposed works)</li> <li>• Bay table and specifications</li> <li>• Structure schedule (outlets, stops, pipes, crossings etc.)</li> <li>• Supply level for Rural Water Corporation assets</li> <li>• Effluent management system</li> <li>• Irrigated area (ha)</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Whole Farm Plan Guidelines for the Shepparton Irrigation Region</a></li> </ul>
<p><b>Infrastructure (non-irrigation)</b></p> <p><input type="checkbox"/> Feed pad</p>		<ul style="list-style-type: none"> <li>• <a href="#">Appendix 3</a> – Additional Goulburn-Murray Water requirements for a Whole Farm Plan</li> <li>• <a href="#">Appendix 4</a> – Additional Floodplain Management Authority requirements for a Whole Farm Plan</li> </ul>
<p><input type="checkbox"/> Buildings, houses, dairies, sheds</p>	<ul style="list-style-type: none"> <li>• Location</li> </ul>	<ul style="list-style-type: none"> <li>• Separate Council permit process</li> </ul>
<p><input type="checkbox"/> Laneways, fences and stock troughs</p>	<ul style="list-style-type: none"> <li>• Location</li> </ul>	
<p><input type="checkbox"/> Power supply</p>		
<p><b>Environmental works/features</b></p> <p><input type="checkbox"/> Proposed revegetation and/or protection of remnant vegetation, wetlands and waterways</p>	<ul style="list-style-type: none"> <li>• Location, type</li> </ul>	
<p><input type="checkbox"/> Proposed remnant vegetation removal</p>	<ul style="list-style-type: none"> <li>• Earthworks must not be within the dripline of any remnant vegetation</li> </ul>	<ul style="list-style-type: none"> <li>• Separate Council process</li> <li>• <a href="#">Native vegetation (environment.vic.gov.au)</a></li> </ul>

Feature	Information required	Reference	
<b>Infrastructure (irrigation)</b>	<input type="checkbox"/> Supply points	Location and type: <ul style="list-style-type: none"> <li>• GMW outlet, channel and channel number</li> <li>• Bore location and number</li> <li>• Pipeline location</li> <li>• Drainage diversions (ML/day)</li> </ul>	
	<input type="checkbox"/> Flood irrigation systems	<ul style="list-style-type: none"> <li>• Bay number</li> <li>• Slope (grade), area (ha) and width (m) of each bay</li> <li>• Check banks</li> <li>• Contours on the bays (survey plan only)</li> <li>• Cuts and fills</li> <li>• Area to be topsoiled</li> <li>• Top of bay heights and supply level</li> <li>• Bottom of bay heights and drain bed levels</li> </ul>	
	<input type="checkbox"/> Farm channels	<ul style="list-style-type: none"> <li>• Direction of flow and design flow rate</li> <li>• Design water level (DWL)</li> <li>• Channel design details/specifications (bed width, batter slopes, crest width, pad width, pad height below DWL)</li> <li>• Bed levels</li> <li>• Channel numbers</li> <li>• Channel structures (type, dimensions and elevation)</li> <li>• Bay outlets – type, number, location and elevation</li> </ul>	
	<input type="checkbox"/> Pipe and riser systems	<ul style="list-style-type: none"> <li>• Location of supply pump(s)</li> <li>• Pump design/pump specification (min. 70% efficiency)</li> <li>• Pipe length and diameter for each section</li> <li>• Flow rate designed for each section</li> <li>• Number, location and size/flow rate of risers</li> <li>• Structures/valves</li> <li>• Design for automation if required</li> <li>• Operating pressure/head and velocity</li> <li>• Air relief valves, vacuum breakers and surge relief</li> <li>• Transient analysis (pressurised pipelines only)</li> <li>• Report showing pump head and flow rate at various locations (steady state analysis)</li> </ul>	



Feature	Information required	Reference
<b>Infrastructure (irrigation)</b> <input type="checkbox"/> Dams and reuse systems	<ul style="list-style-type: none"> <li>Reuse sump location and capacity in ML</li> <li>Reuse sump design details</li> <li>Reuse pump – design of the pump, position, flow rates from reuse (70% efficiency)</li> <li>Reuse return pipeline or channel and return area (ha)</li> <li>Reuse outfall point/inlet structure, GMW drain number, sill height and implications</li> <li>Effluent reuse options including discharge point</li> </ul>	<ul style="list-style-type: none"> <li>New dams (include reuse dams) on waterways require a licence from Goulburn-Murray Water.</li> <li><a href="#">Appendix 3</a> – Additional Goulburn-Murray Water requirements for a Whole Farm Plan.</li> <li><a href="#">Appendix 4</a> – Additional Floodplain Management Authority requirements for a Whole Farm Plan.</li> </ul>
<input type="checkbox"/> Overhead spray irrigation systems (centre pivot, lateral and linear move systems)	<ul style="list-style-type: none"> <li>Application rate (mm/day)</li> <li>Uniformity of distribution (min. 75%)</li> <li>Pump site design and specifications (min. 70% energy efficiency)</li> <li>Operating pressures</li> <li>Other considerations – end guns, swing arms, sprinkler packages</li> </ul>	
<input type="checkbox"/> Drip and micro irrigation systems	<ul style="list-style-type: none"> <li>Pump site design and specifications (min. 70% energy efficiency)</li> <li>Mainlines, sub-lines, row spacing, sprinklers/drippers</li> <li>Irrigation area (ha)</li> <li>Operating pressure</li> <li>Application rate (mm/day)</li> <li>Uniformity of distribution (min. 90%)</li> </ul>	

# Appendix 1: Approval Pathway 1 form

For a copy of the Whole Farm Plan Form, for Pathway 1 (permit required), please refer to your council's web page for more information:

<a href="#">Campaspe Shire Council</a>	<a href="#">City of Greater Shepparton</a>	<a href="#">Moira Shire Council</a>
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The following is an example of the form for approval Pathway 1, 2 and 3.

## Whole Farm Plan Form

*Planning and Environment Act 1987*

Use this form to provide information to determine the need for a planning permit for earthworks, for works within the Farming Zone, Land Subject to Inundation Overlay, Floodway Overlay and Salinity Management Overlay.

**Supplementary information requested in this form should be provided as an attachment.**

Privacy notice  
 The Council is collecting the information on this form in accordance with its legislative powers and functions. Any material submitted with this application, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act 1987*. If you have any questions, please contact your Shire Council.

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### The Land

Address of the land

Street No: <a href="#">Click here to enter text.</a>	Street Name: <a href="#">Click here to enter text.</a>
Lot No: <a href="#">Click here to enter text.</a>	On LP/PS No: <a href="#">Click here to enter text.</a>
Suburb: <a href="#">Click here to enter text.</a>	

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### Earthworks or Works Exemptions

**Do the works have any impact on Native Vegetation for example earthworks around the drip line of Vegetation and/or the removal of Native Vegetation (such as trees, dead trees or grasses)?**

Yes  No

**Do the works create or alter access to a road in a Road Zone Category 1?**

Yes  No

**Do the earthworks change the discharge point of water across a property boundary?**

Yes  No

**Do the earthworks change the rate of flow of water across a property boundary?**

Yes  No

**Do the earthworks increase the discharge of saline groundwater ?**

Yes  No

**Do the earthworks adversely impede the free passage and temporary storage of floodwater (and so long as the written approval of the relevant floodplain management authority has been obtained)?**

Yes  No

### Process 1 - Planning Permit Required

Please Tick If you answered **Yes to any** of the above questions **a Planning Permit is Required**.

A Planning Permit is required, you **must** provide to council

- this form,
- a full copy of title for all the land in the plan and
- a copy of the plan
- an invoice will be sent for the application fee.

### Process 2 - Planning Permit Not Required (Council Satisfactory Matter)

Please Tick If you answered **No to All** of the above questions **a Planning Permit is not Required** and you request Council to get authority approval.

you **must** provide to council

- this form,
- a full copy of title for all the land in the plan and
- a copy of the plan
- an invoice will be sent for the application fee.

You will receive from council a letter of approval, a stamped approved plan with copies of the consent from all authorities.

### Process 3 - Planning Permit Not Required (Exemption Processing)

Please Tick If you answered **No to All** of the above questions **a Planning Permit is not Required** and you provide referral authority approvals.

you **must** provide to council

- this form,
- a full copy of title for all the land in the plan and
- a copy of the plan
- Relevant Referral Authorities Written Consent

Once the above information is received the Council will confirm in writing that a planning permit is not required.

### Development Cost:

\$ [Click here to enter text.](#)

### Designer

**This form must be signed**

**Remember** it is against the law to provide false or misleading information

**I act on behalf of the land owner and I declare that the plans have been prepared in accordance with the technical guidelines and the above information is true and correct and that no planning permit is required.**

Name: [Click here to enter text.](#)

Signature: [Click here to enter text.](#)

Date [Click here to enter](#)

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### Applicant details - Provide details of the applicant.

The person you want council to communicate with about the application.

**Note** if the applicant is not the owner of the land, it is the responsibility of the applicant to inform the owner of the application.

Name: <a href="#">Click here to enter text.</a>	
Organisation: <a href="#">Click here to enter text.</a>	
Postal Address: <a href="#">Click here to enter text.</a>	
Postcode:	

Contact phone: <a href="#">Click here to enter text.</a>	<input type="checkbox"/>	Please Indicate your preferred contact method by numbering in order of preference
Mobile phone: <a href="#">Click here to enter text.</a>	<input type="checkbox"/>	
Email: <a href="#">Click here to enter text.</a>	<input type="checkbox"/>	
Fax: <a href="#">Click here to enter text.</a>	<input type="checkbox"/>	

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### Land Owner Signature

**This form must be signed**

**Remember** it is against the law to provide false or misleading information

**I declare that the above information is true and correct and that no planning permit is required.**

Name: <a href="#">Click here to enter text.</a>	
Signature: <a href="#">Click here to enter text.</a>	
Date:	<a href="#">Click here to enter text.</a>

---

### Lodgement

**Lodge the completed and signed form along with relevant required information.**

For help or more information

**Email: XXXXX**

Mail:

In Person:

If you wish to submit the application in person please call on the number below to arrange an appointment time to meet with a Planning Officer.

Telephone: ■ Planning Department (03) XXXXX  
 Website: wXXXXX



# Appendix 2: Approval Pathway 2 – Whole Farm Plan process and ‘Satisfactory Matters’ approval of a Whole Farm Plan

1. Applicant (or person acting on behalf of applicant) submits an electronic copy of their Whole Farm Plan and relevant application form to their local Council (fee may apply).

<a href="#"><u>Campaspe Shire Council</u></a>	<a href="#"><u>City of Greater Shepparton</u></a>	<a href="#"><u>Moira Shire Council</u></a>
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2. Council (if no further information is required from applicant) will seek written consent from the following organisations:

Relevant organisation	Where earthworks or works....
<b>Floodplain Management Authority (Catchment Management Authority)</b>	<ul style="list-style-type: none"> <li>• are proposed on land that is liable to flooding as identified in the Land Subject to Inundation Overlay or Floodway Overlay; and/or</li> <li>• are proposed on land within 30m of a waterway.</li> </ul>
<b>Rural Water Corporation (Goulburn-Murray Water)</b>	<ul style="list-style-type: none"> <li>• are located on land within 30m of the Rural Water Corporation’s land or assets (including Declared Drainage Courses under the <i>Water Act 1989</i>); and/or</li> <li>• may impact on the Rural Water Corporation’s works or interests; and/or</li> <li>• may cause drainage impacts as described in any published guidelines or in the opinion of the relevant responsible authority.</li> </ul>
<b>Public Land Manager</b>	<ul style="list-style-type: none"> <li>• are located on public land; and/or</li> <li>• will change the rate of flow or the discharge point of water across a property boundary adjoining public land.</li> </ul>
<b>Department of Energy, Environment and Climate Action</b>	<ul style="list-style-type: none"> <li>• are located on land within a Salinity Management Overlay.</li> </ul>
<b>Roads Corporation</b>	<ul style="list-style-type: none"> <li>• may impact on a declared road under the management of the Roads Corporation, to ensure earthworks or works do not create or alter access to a road in Road Zone Category 1 or land in a Public Acquisition Overlay for the purpose of acquiring a Category 1 road.</li> </ul>

4. Based on advice from relevant authorities (including seeking further information if required) Council will determine the Whole Farm Plans eligibility for endorsement, then either:
  - Approve plan as is; or
  - Recommend changes prior to approval.
5. Council notifies applicant of decision in writing and information on any further steps required.

# Appendix 3: Additional Goulburn-Murray Water requirements for a Whole Farm Plan

These address general requirements that are commonly applicable; however, there will always be cases that fall outside the scope of the guidelines and must be assessed on their individual merits. Therefore, pre-application discussions are strongly recommended.

## Private works and/or rationalisations

- Service point termination may attract additional fees, such as a delivery share termination fee which will be calculated as per current Goulburn Murray Water (GMW) Prices. The Customer Service Manager must be consulted regarding termination.
- Any structures to be decommissioned as part of the works will be at the cost of the property developer.
- For travelling/centre pivot irrigator, the irrigator must be set up, maintained, and operated such that water is not applied to the GMW easement/freehold/reserve. Note that this requirement may be exempted for a travelling/centre pivot irrigator passing over buried asset such as pipeline, however it needs to be assessed on case-by-case basis to avoid or minimise the risk of causing damages to the asset.
- Any existing farm channels/drains constructed on the GMW easement/freehold/reserve must be removed. New or relocation of the existing farm assets such as channels or drains may require to be constructed from the setbacks provided below.
- Where works are proposed next to a GMW asset, GMW may require, in appropriate circumstances, the following setbacks:

## Easements

- No works are to be constructed on GMW easement, freehold or reserve without approval. It is the responsibility of the developer to locate the easement or reserve boundary.
- To safeguard adjacent lots in the event of sale/subdivision, a supply or drainage easement may be instigated to allow supply or natural drainage to occur.
- Where the rationalisation of a GMW outlet involves reinstatement of supply from an adjacent supply channel through an adjoining property/ies, appropriate right of access for the proposed supply connection through the adjoining property/ies must be obtained and registered on title prior to any works that reconnect supply to the property.

<b>Farm channel/ pipeline/drain</b>	A. a minimum of 1m from the easement/freehold/reserve boundary.
<b>Tree plantation</b>	<p>A. a minimum of 1m from the easement/freehold/reserve boundary.</p> <p>B. where there is no GMW land tenure, a minimum of 5m from the toe of the GMW channel/drain bank.</p> <p>C. All varieties of Willow, all varieties of Poplar, and Swamp She-oak (<i>Casuarina glauca</i>) should not be planted within 50m of channels or drains.</p>
<b>Recycle dam/ sump</b>	<p>A. a minimum of 3m from the easement/freehold/reserve boundary.</p> <p>B. where there is no GMW land tenure, a minimum of 7m from the toe of the GMW channel/drain bank.</p>

## Water storage dams

- If the extension/construction of water storages exceed the Annual Use Limit (AUL) of the property, the proponent must secure a high-flow storage agreement for the volume in excess of the current AUL for the property. The proponent must contact GMW to secure this agreement (based on the combined capacity of the dam and associated reuse dams) and arrange access to water. A new high-flow diversion point may also require to be installed and will be at the proponent's expense.
- The phreatic line of the storage must not interfere with any GMW asset.
- The batters of the storage must be stabilised to prevent soil erosion.

## Reuse dams (sump, recycle dams)

- The volume of reuse storage must not exceed 1ML for every 10 ha of irrigated land that drains to that dam. Alternatively, the proponent must purchase or transfer sufficient surface water entitlement to cover all recycle storage volumes in excess of the volume allowed.
- The phreatic line of the storage must not interfere with any GMW asset.
- Reuse dams must not be directly connected to farm drainage inlets.
- A sill structure must be provided directly upstream of the inlet to adequately separate water in the reuse sump from the GMW drain, if the inlet point is set at the GMW drain bed level. The sill must be set at a level above the design water level of the sump and the bed of the GMW drain.

## Pump

- Where a proposed pump is located next to or in an active flow path, Drainage Course Declaration (DCD) or waterway, the pump and fuel tank must be sited outside the active flow path/DCD/waterway, above the 1 in 10-year flood level and be appropriately bunded to contain 100% of the fuel tank capacity in the event of a leak or spill.

## Wastewater treatment plant / effluent ponds

- All works associated with the construction of a treatment system and its on-going use, including re-use of effluent must be in accordance with the relevant guidelines and conditions of the approval, noting that depending on the type of development approval process may differ.
- Irrigation with effluent including shandied with irrigation water must be managed in accordance with relevant farm waste and effluent management guidelines. More information can be found from the following websites:
  - [EPA Victoria](#)
  - [Agriculture Victoria](#)
  - [Dairy Australia](#)
  - [Australian Pork Limited](#)
- The dam/basin/lagoon must be lined with an impervious liner, and if clay is used, it must be compacted to a seepage rate of not greater than  $1 \times 10^{-9}$  m/sec. The dam/basin/lagoon must be operated to a minimum level of effluent to ensure the liner does not dry out and crack.
- The dam/basin/lagoon must be designed and constructed so that surface water cannot enter through run-off.

- Although the treatment lagoons/ponds are constructed to minimise leakages, a setback distance is proposed as a buffer zone to minimise the risk of potential contamination due to seepage or other structural integrity issues (e.g. vandalism, defects, asset failure, O&M works etc.). The lagoons/ponds must be located at least 30 metres from the toe of the Goulburn-Murray Water (GMW) channel bank. No works are to encroach on the channel easement/freehold land/reserve, and any works or associated fixtures must not restrict GMW access along the channel.
- The primary, maturation and winter storage lagoons must not be located within 100 metres of any waterways or GMW drains.
- Setback required for areas where reuse of effluent is proposed from GMW drains or waterways to be determined based on the quality of the effluent. The proponent shall provide water quality data to GMW to determine appropriate setback requirements.
- Effluent must not be applied directly to a GMW drain or waterway.
- Removed solids must not be spread within 60m of GMW drains, channels, or any waterway.

Where an effluent line crosses a GMW asset, the following must be designed for:

- The effluent line is to be bored under the GMW asset.
- There shall be a minimum cover of 2 metres under the hard bed of GMW channels and 1 metre under GMW drains.
- There shall be a minimum cover of 600 mm within the easement/reserve.

## Livestock Buildings/Areas

- All buildings and works associated with the proposed feed lot/feed pad must be at least 100m from any waterways and GMW drains and 30m from GMW channels.
- On-going use of the site must be undertaken in a manner whereby no polluted or sediment-laden run-off can be discharged directly or indirectly into any waterways or GMW drains.
- Any effluent generated from the feed pad/feed lot or any other area must be discharged to an appropriately designed and sized treatment system/effluent ponds via an appropriate drainage and collection system. Refer to the condition of the Wastewater Treatment Plant / Effluent Ponds for more details.
- Contaminated stormwater from the feed pad/feed lot and manure stockpile area must be separated from uncontaminated stormwater and must not be discharged to any waterways, GMW channels or drains.
- The floor of the manure stockpile must be compacted to a seepage rate of not greater than  $1 \times 10^{-9}$  m/sec, and the stockpile must be bunded to ensure all run-off is diverted to the effluent pond system.
- No land application of effluent either directly or shandied with irrigation water must occur within 60m of any waterways or GMW drains unless there is a functioning re-use system which ensures that no irrigation run-off can enter the drain, in which case the setback distance may be reduced to 30m or where a vegetated filter strip is maintained with runner developing, non-clumping grasses and has no depressions where any run-off can concentrate before entering the waterway or drain.

# Appendix 4: Additional Goulburn Broken Catchment Management Authority requirements for a Whole Farm Plan

These cater for general requirements that are common, but there will always be matters that will sit outside the guidelines that will need to be considered on its merits, so pre-application discussions are recommended.

## Waterways

- Effluent absorption fields must be located a minimum distance of 60 metres from declared waterways.
- Check banks must be terminated a minimum distance of 30 metres from the ends of irrigation bays

## Treatment ponds / evaporation basins

- Council must be contacted to determine if a separate permit is required.
- Banks must be 600mm above the 100 ADP flood level, for example 100 ADP of 102.8m AHD, the bank must be at least 103.4m AHD.
- Must have an impervious liner or be constructed to achieve a permeability of at least 600mm of clay of maximum hydraulic conductivity 10<sup>-9</sup> m/s or equivalent, to minimise groundwater contamination.
- All drainage must be kept on site.

## Flood Levels

- The determination of future 1% ADP flood levels must include an allowance for climate change. Designer to consult with GB CMA around appropriate allowance.

## Nutrient management, effluent dams and feed pads

- Council must be contacted to determine if a separate permit is required.
- Drainage from feed pads and surrounds must be recycled with all drainage to be retained on site.
- The land capability is to be assessed to determine sustainable irrigation application rates of effluent water. The application of nutrients should be undertaken at a rate appropriate for the soil type and the type of pasture/crop grown. The rate of application should ensure the relevant N, P and K uptake such that there can be no discharge of excess nutrients to waterways.
- Effluent storage ponds must be constructed a minimum distance of 100m from any waterway and should be constructed above ground water level.
- Effluent storage ponds must be bunded and have an impervious liner consisting of no less than 600mm clay of maximum hydraulic conductivity 10<sup>-9</sup> m/s or equivalent to minimise groundwater contamination.
- A calculation of the area required for waste disposal for the number of cattle onsite must be provided before the use commences to ensure a nutrient balance is maintained.
- A 30m wide riparian buffer zone must be provided along each waterway and fenced to prevent access to the waterway.
- Where a Crown Water Frontage Reserve exists, the entire frontage reserve is to be fenced and protected from stock access and managed for conservation values.

# Appendix 5: History of the Earthworks Controls in the Planning Scheme

Year	Document title	Purpose	Planning reference
1994	<b>Earthworks Planning Controls</b>	To support the Shepparton Irrigation Region Land and Water Salinity Management Plan by the (then) 13 councils (after Council amalgamations in 1994 this number reduced to three). It was recognised, that privately owned drainage developments needed to be managed in a controlled and coordinated way to allow for the reasonable flow of water through the Catchment regardless of municipal boundaries.	Incorporated Document under Clause 81 of the Campaspe, Greater Shepparton and Moira Planning Scheme.
1998	<b>Planning Controls for Earthworks in the Goulburn Broken Catchment – Operation and Application Technical Guidelines’, November 1997.</b>	This allowed the Controls to be available to all municipalities in the Goulburn Broken Catchment. These technical guidelines were primarily intended for the use of local government, agency officers and farm plan designers in considering applications and referrals for planning. A short form of this document was also available.	Amendment approved by the Minister for Planning and Local Government.
2011	<b>Earthworks Controls in the Shepparton Irrigation Region – Discussion and Options Paper, August 2010</b>	Introduction of the Victorian Planning Provisions in 1996 and a new suite of rural zones in 2006 and various changes to relevant legislation.	New reference document adopted into the Planning Scheme (GC77).
2015	<b>Earthworks Controls in the Shire of Campaspe, City of Greater Shepparton and the Moira Shire.</b>	Updated the ‘Earthworks Controls’ based on the outcomes of the above discussion and options paper.	Revised Incorporated document (GC35).
2020	<b>Proposed Earthworks Controls in the Shire of Campaspe, City of Greater Shepparton and the Shire of Moira, August 2020</b>	To exempt certain earthworks from the need for a permit.	Revised incorporated document submitted to Minister for Planning (GC173).
2023	<b>Earthworks controls in the Shire of Campaspe, City of Greater Shepparton and the Shire of Moira, December 2022</b>	To exempt certain earthworks from the need for a permit.	Minister approved Amendment GC 173, 17 August 2023.

# Appendix 6: Roles and responsibilities

## Responsible authority

Council are the responsible authority for the administration and enforcement of the Planning Scheme.

## Referral authority

Council will refer an application as directed by the Planning Scheme or where the authority may have an interest in the application. Referral authorities can request further information and/or impose conditions on a permit. The most common referral authorities in this case are the Goulburn Broken Catchment Management Authority, North Central Catchment Management Authority and Goulburn-Murray Water.

## Relevant organisation

Council will seek advice on whether a Whole Farm Plan meets the necessary requirements.

## Goulburn Broken Catchment Management Authority (GB CMA)

Manage the Whole Farm Plan incentive program with funding from the Victorian Government and act as a 'referral authority' for Planning Permits or a 'relevant organisation' for Whole Farm Plan approvals.

## Rural Water Corporation (Goulburn-Murray Water, GMW)

Act as a 'referral authority' for Planning Permits or a 'relevant organisation' for Whole Farm Plan approvals.

## Agriculture Victoria (AgVic)

Administer incentives and provide advice to landholders throughout the development of an irrigation Whole Farm Plan.

## Irrigation Surveyors and Designers Group (ISDG)

Development and preparation of Whole Farm Plans. 'Suitably qualified and experienced' as identified by the Irrigation Survey and Designers Group (ISDG) refers to the following:

- Have a minimum of five years' experience in irrigation survey and/or design and ability to meet industry regulated benchmarks; and/or
- Thereafter, hold a tertiary qualification in Survey or Engineering (Agricultural or Civil); or in Agricultural Science or Certified Irrigation Design (Ag Surface); or Certified Irrigation Consultant; or Diploma of Irrigation or alternatively, six years practical experience in the surface irrigation industry and ability to meet industry regulated benchmarks.

# References

Control of Works and Activities in Natural Drainage Systems Policy Paper (SKM, 1997)

[Guidelines for the removal, destruction or lopping of native vegetation \(DELWP 1997\)](#)

[Guidelines for Development in Flood Affected Areas \(DELWP, 2019\)](#)

[Guidelines for the protection of water quality \(North East Planning Referrals Committee, 2016\)](#)

[Floodplain Management Principles and Best Practice Assessment for Land Use Development Proposals \(GBCMA, 2014\)](#)

[Best Practice Principles and Standards for Drainage in Dryland Catchments \(GBCMA, 2002\)](#)

[Floodplain Management Guidelines for Whole Farm Plans within the Shepparton Irrigation Region \(GBCMA, 2003\)](#)

[Regional Irrigation Development Guidelines \(GBCMA, 2007\)](#)

Shepparton Irrigation Region Catchment Implementation Strategy – Guidelines for Whole Farm Plan incentives (2023)

[Irrigation in Northern Victoria \(GBCMA\)](#)

[Technical guidelines for waterway management \(DELWP, 2017\)](#)

[Water Act 1989 \(s 20\) http://classic.austlii.edu.au/au/legis/vic/consol\\_act/wa198983/s20.html](http://classic.austlii.edu.au/au/legis/vic/consol_act/wa198983/s20.html)

[Whole Farm Planning in the Shepparton Irrigation Region \(GBCMA, 2018\)](#)





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