

Northern Victoria Irrigation Development Guidelines

AGRICULTURE VICTORIA

FACT SHEET 5 - Buffer Standards for the Protection of Biodiversity

This fact sheet outlines the buffer zone standards required to comply with the Northern Victorian Irrigation Development Guidelines, 2020 (the Guidelines) and provides an overview of the process. Buffer zones may be required to protect native vegetation from the impact of a new irrigation development.

WHERE TO START

All developers of new irrigation developments (and significant re-developments) within the Goulburn Murray Water (GMW) region of Northern Victoria must follow the Guidelines.

Contact an Irrigation Development Coordinator

Agriculture Victoria employs Irrigation Development Coordinators (IDCs) in Northern Victoria to provide information about the Guidelines and to guide developers through the approvals process, including the likelihood of buffer zones being required.

The IDC service is provided at no charge and can save developers considerable time and resources.

IDC contacts:

Echuca (west of the Goulburn River to Nyah)

- Kathy Long, Agriculture Victoria, PO Box 441, Echuca, Vic. 3564
kathy.long@agriculture.vic.gov.au

Rutherglen (east of the Goulburn River and the North East).

- Dennis Watson, Agriculture Victoria, 124 Chiltern Valley Road, Rutherglen, Vic 3685,
dennis.watson@agriculture.vic.gov.au

Complete an Irrigation Development Application Form

To commence the approval process, developers must obtain an Irrigation Development Application Form from the relevant IDC and return the completed form to the IDC.

The completed Irrigation Development Application Form provides the basis for preliminary assessments. The IDC will undertake a desktop analysis to examine readily known issues which may prevent the development from going ahead and/or have a large impact upon the viability of the development. A site visit may be required to clarify development issues that may require further investigation such as the need for buffer zones.

WHAT TO EXPECT

Buffer zones may be included as a condition on water-use licences or take and use licences. The IDC will provide further information and advice specific to the new irrigation development proposal.

What is a buffer

A buffer is an area of land set aside between irrigation developments and retained native vegetation to ensure water use and management practices do not impact upon biodiversity values.

The adoption of buffers also reduces potential impacts from:

- Spray drift
- Soil erosion and surface water movement
- Surface runoff quality (e.g. nutrients and suspended solids) into waterways
- Weed invasion
- Encroachment and damage caused by machinery.

Standard buffer widths are required between retained native vegetation and irrigation to reduce the impact on native vegetation and biodiversity values caused by irrigation induced groundwater movement.



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The proposed buffers must be described in the Irrigation and Drainage Plan (IDP), which must accompany each irrigation development application.

Buffer areas must be included with the investigations or studies supporting the application. These may be independently reviewed by the licensing authority prior to approval of the final irrigation development application and conditions.

The proposed buffer will not be reviewed until the irrigation and drainage design has been completed as this will influence the buffer decision process.

WHAT VEGETATION IS PROTECTED?

Native roadside vegetation, vegetation corridors, remnant patches within a property, scattered vegetation and mapped wetlands are all protected and defined for consistent application of buffer requirements.

The IDC can provide more specific details about these definitions as part of a preliminary discussion about the proposed irrigation development. [The Department of Environment, Land, Water and Planning \(DELWP\) Guidelines](#) (2017) also provide detailed definitions.

Standard native vegetation buffers

Buffer requirements are determined using a risk-based approach depending on two main factors:

- The assessed level of risk a proposed irrigation development is likely to have on native vegetation
- The value and condition of the native vegetation or waterway on which the proposed irrigation development is likely to impact.

The level of risk above can only be determined by obtaining data specific to the site, so in most instances conservative buffer distances are adopted. These standards differ depending on the soil type. For Mallee soils the standard buffers applied are consistent with the Mallee Irrigation Development Guidelines (2020). Standard buffers for non-Mallee and Mallee soils are shown in **Tables 1 & 2**.

Buffer distances should only be reduced where the applicant can demonstrate that biodiversity values will not be affected. This can be done by providing further evidence (e.g. the development is downslope of vegetation) and may require investigations or mitigating works.

Buffer distances are measured from the outer drip line (canopy edge) of the vegetation.

Table 1: Standard vegetation buffers for irrigation developments on non-Mallee soils

Environmental asset/value	Standard buffer for non-Mallee soils
Land administered under the <i>National Parks Act 1975</i> and significant reserves under the <i>Crown Land (Reserves) Act 1978</i>	Up to 200 metres or as advised by Parks Vic
Waterways including mapped wetlands	30 metres (Clause 14.02)
Any vegetation which meets the definition of native vegetation as per 52.17	Tree Protection Zone (e.g. 12 x diameter at breast height at 1.4 m) up to 15 m maximum which will be determined by the responsible authority on a case-by-case basis.

Table 2: Standard vegetation buffers for irrigation developments on Mallee soils

Environmental asset/value	Standard buffer for Mallee soils
Land administered under the <i>National Parks Act 1975</i> and significant reserves under the <i>Crown Land (Reserves) Act 1978</i>	200 metres or as advised by Parks Victoria
Native vegetation stand of significance (e.g. State Park, wetland etc.)	50 metres
Roadside vegetation or vegetation corridor	50 metres if unvegetated 25 metres if vegetated
Remnant patch within property	50 metres if unvegetated 25 metres if vegetated
Scattered vegetation (including single paddock trees) within property	5 metres from the drip line

HOW ARE BUFFERS MANAGED?

Buffers must be managed for the benefit of biodiversity in a farming system, which will include various management requirements (e.g. stock management, ecosystem services, species selection). Advice should be sought prior to approval of the new irrigation development where it includes buffers, to ensure long-term management. Responsible / referral authorities may specify conditions in any applicable planning permits.

Vegetated buffer:

- Vegetation must be established within 12 months of planting the adjoining irrigated crop, or as per conditions of any permit
- Species used in revegetation works must be based on the benchmark adjoining Ecological Vegetation Class species list for that area
- If livestock grazing is to remain a component of the development enterprise, stock proof fencing is to be erected to exclude livestock from any vegetated buffer area.

All buffers must be managed as follows:

- Buffers must not be used for works or development without the approval of the applicable Department or Responsible Authority
- Appropriate measures must be in place to maintain separation between irrigation activities and the buffer area and prevent encroachment.

HOW ARE BUFFERS APPLIED TO PIVOT IRRIGATION?

Buffers are only required between retained native vegetation and irrigation. Buffer distances are calculated from the edge of the irrigation area.

Where a water-use licence or take and use licence is approved for pivot irrigation, a particular condition should be placed on the licence to the effect that "Pivot irrigation is approved for the land specified in the licence, other forms of irrigation systems must not be carried out on the land specified in the licence without the addition of particular conditions governing the use of such an irrigation system".

FURTHER INFORMATION

An information kit containing related fact sheets is available from the IDC:

- Irrigation and drainage plan
- Protecting Aboriginal cultural heritage
- Native vegetation protection
- Buffer standards
- Applying for a works licence
- Public land managers consent application
- Siting and design guidelines
- Roles and responsibilities



ACCESSIBILITY

If you would like to receive this publication in an accessible format, please telephone Kathy Long on 03 54821922 or email irrigation@agriculture.vic.gov.au

If you are deaf, or have a hearing or speech impairment contact the [National Relay Service](#) on 133 677
