

Southwest Irrigation Development Guidelines

FACT SHEET

Irrigation and Drainage Plans



An Irrigation and Drainage Plan must accompany applications for a new Take and Use licence or major variation to an existing licence to comply with the Southwest Irrigation Development Guidelines (the Guidelines).

WHERE TO START

Contact Southern Rural Water (SRW) who will be able to advise on likely requirements and provide you with the relevant application forms.

You can also contact the Irrigation Development Coordinator (IDC) who can provide further information about the guidelines and connect you with contacts such as Agriculture Victoria irrigation extension staff and other agencies as required.

WHAT TO EXPECT

The key purpose of an Irrigation and Drainage Plan (IDP) is to match the way land is irrigated and drainage disposed of, with the characteristics of the land and soil, to meet the objective of minimising harmful side-effects, including to the environment.

The design must also meet current best practice.

The standards for an IDP are described in full detail in Schedule 1 of [Ministerial Determination for Standard Water Use Conditions](#).

What is in an IDP?

There are six components that an IDP must include. These are:

- A. A map of the proposed development
- B. A topographical survey
- C. A soil assessment
- D. Irrigation design and management details
- E. Arrangements for drainage disposal
- F. Biodiversity protection arrangements

SRW will be able to clarify which elements of the IDP are required in your situation following a preliminary risk assessment.

A. A map of the proposed development which clearly identifies:

- Property boundaries
- Areas to be irrigated (irrigation footprint)
- Type and location of crops to be planted
- Location of existing infrastructure e.g., buildings, roads, water storages
- Location of proposed new infrastructure features
- Existing native vegetation, wetlands, and other environmental features
- Buffers to protect retained native vegetation and mapped wetlands.

B. Topographical survey

The topographical survey must include elevation data and appropriate contours.

C. Soil assessment

The soil assessment requirements may vary depending on the irrigation system and crop type proposed for the development. Where required, a soil survey must be undertaken by a suitably qualified soil surveyor and a written report must be provided.



The written report must include:

- Description of topography and previous land use
- Key aspects of climate
- Soil profile descriptions
- Factors affecting potential root-zone depth
- Soil/water interactions e.g., drainage, permeability, infiltration, readily available water
- Land capability
- Soil chemistry and soil amelioration proposals
- Hydrogeology – if required by the water authority.

D. Irrigation design and management plan

All developments will require:

- Anticipated crop water requirements and proposed maximum application rates.
- Irrigation system specifications
- An identified supply point to the irrigated area
- Proposed irrigation scheduling arrangements.

NOTE: The irrigation design must be completed with the following principles in mind:

- The irrigation system should be capable of applying an irrigation depth equivalent to, or less than, the readily available water of the soil appropriate to the crop. Areas of similar soil capability are to be grouped as irrigation management units and supplied separately based on the results of the soil survey
- Flood and furrow irrigation should not occur where the calculated minimum depth that can be applied (taking into account infiltration rates, slopes, length of irrigation runs and discharge rate) exceeds the readily available water within the estimated crop root-zone.

E. Arrangements for drainage disposal

The need for subsurface and/or surface drainage scheme and re-use system must be considered. A design is to be developed for the appropriate system(s) including the:

- Volume to be collected
- Details of any approved on-site disposal site and/or details of any off-site disposal site
- Details of approvals for any proposed re-use schemes and/or irrigation storages
- Location of pumps, discharge, or re-use points.



F. Biodiversity protection arrangements

The IDP must identify those parts of the property and adjacent land where the use of water for irrigation on the property poses direct and ongoing risk to wetlands, native vegetation, or the habitat of native animals.

For those areas, the IDP must specify appropriate preventative measures, appropriate monitoring parameters, appropriate monitoring equipment and appropriate locations for the equipment to be installed. This includes nominated water table monitoring bores or piezometers.

The plan must also specify equipment maintenance standards, data reading, recording, reporting and auditing requirements, correction action thresholds, corrective action procedures and corrective action time limits.

The granting of a Take and Use licence does not remove the need to apply for any authorisation or permission necessary under any other Act with respect to the development.

FURTHER INFORMATION

An information kit containing related fact sheets is available at www.ghcma.vic.gov.au and can be discussed further with the Irrigation Development Coordinator.

ACCESSIBILITY

If you would like to receive this publication in an accessible format, please telephone GHCMA on (03) 5571 2526 or email ghcma@ghcma.vic.gov.au

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