

# The SMART Farming Farm Water Development Plan Program

## Guidelines for Preparing a Farm Water Development Plan

**The SMART Farming Farm Water Development Plan Program provides funding to subsidise the cost of preparing a Farm Water Development Plan.**

### **The Plan should:**

- Audit existing on-farm irrigation activities and other property water uses;
- Assess short and longer term opportunities to sustainably increase irrigated productivity and production on the property, taking account of topography, soil types and other important property planning matters;
- Determine options to access additional irrigation water through water use efficiency gains, identifying new opportunities for storages and/or groundwater extraction; and
- Identify the economic and environmental issues to be considered in progressing these options

Subsidies are payable by The Department of Primary Industries and Water (DPIW) where a consultant works with the property owner to prepare a **Farm Water Development Plan** according to these guidelines and the Plan is accepted by DPIW as meeting these guidelines.

### **Essential Elements of a Farm Water Development Plan**

A **Farm Water Development Plan** must include:

- **An overview of the property including:**
  - Property Owner names and contact details
  - Property Name, Address and Title reference
  - Map location (1:25,000)
  - Main Water Course (if relevant)

- Total Farm Area = Effective Cropping/Grazing area, native bushland, irrigable area based on land capability) Ha
- Water Sources (Dam(s), Winter Storage Entitlement, Permanent Entitlements, Temporary Entitlements, Water Bores etc (if relevant)
- Summary of recent farming enterprises in terms of livestock, pasture and crop areas
- Photos providing an overview of the property

- **A map(s) of the farm available in digital (GIS) and hard copy showing**

- water courses
- soil types
- soil capability
- drainage
- native vegetation
- existing and any proposed water storages and/or bores
- water extraction from streams, irrigation and other main systems and layout
- current and proposed irrigation areas

- **Climate**

- List nearest observation station
- Rainfall: mean monthly
- Temperature: mean monthly maximum and minimum
- Evaporation: mean daily for each month

- **Soils/Land Capability**

- Soil Class – discussion of associated risks, crop or pasture suitability, crop frequency,
- Capability/suitability for irrigation
- Drainage
- Soil Conservation measures recommended to mitigate any potential effects of irrigation

- **A water audit of the farm for the current irrigation systems and other main water uses covering:**

- Inventory of legal documents covering water entitlements and other non-legislative agreements including dam permits, water licences, bores, and temporary water trades.
- Listing of current irrigation enterprises and irrigated area and other significant property water uses
- Audit of existing water entitlements and agreements for ability to meet reasonable quantitative and reliability needs for existing irrigation enterprises and other significant property water uses
- Irrigation scheduling - methods used/to be used
- Assessment of water use efficiency – comparison of the irrigation practices with “normal and best practices” for the area
- Comment on suitability of existing irrigation infrastructure and equipment for optimising water use
- Assessment of potential water savings through upgraded irrigation infrastructure and equipment and improved irrigation practices

- **Current water use by source**

- Livestock needs
- Irrigation needs
- Dairy shed operations
- Other

- **Business Objectives/Opportunities**

- Business objectives showing how new water storage could be used to target production for an identified market, either crops, perennial horticulture, animal production and/or water trading

- **Potential use/future farming needs**

- Future water needs - likely risks for existing enterprises– environmental flows, drought, climate change, market requirements, EMS and QA requirements
- Proposed changes to farm enterprises
- Proposed increases to irrigated area
- Other water needs (eg. stock watering, dairy shed use)

- **Potential sources of increased water supplies**

- Quantitative assessment of potential for new or enlarged dams, extraction from watercourses (gravity and pumping) to help fill dams, bores, wastewater reuse, stormwater use – include ML for each
- Water use efficiency savings identified – include ML
- Opportunities for water trading – include ML
- Total new water development identified - ML

- **Identification of the economic and environmental issues to be considered in progressing these water development options.**

- Capital costs
- Ongoing operating costs
- Net revenue from productivity /production increases
- Dam site suitability from an engineering perspective
- Dam safety issues
- Flora and fauna
- Aquatic ecology
- Hydrology
- Geomorphology or
- Aboriginal or historical cultural heritage
- Salinity
- Algae

(Note that this is an initial identification ONLY of potential flaws)

- **Summary and Recommendations**

- Preferred options for providing current and future water needs
- Expected timetable for development of options
- Further studies required to implement recommendations or to mitigate against identified risks

**For Further Information Please Contact:**

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