





## Irrigation impacts



- Changed hydrologic regime
- Widespread shallow watertables
- Water logging
- Salinisation



## General Design Considerations



- Removing irrigation induced rainfall runoff
- Removing residual floodwater
- Providing outfall for salt disposal
- Protection/enhancement of values
- Acceptable downstream impacts



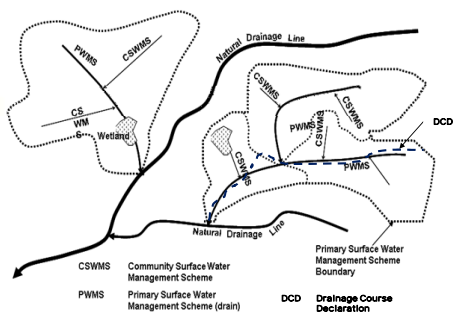
## General Benefits



- Increased production
- Reduced groundwater control costs
- Catalyst for improved practices
- Opportunities for strategic reuse
- Environmental enhancement



## SWMS Components






## Kinnairds - Muckatah





Natural wetland / Retardation

Constructed wetland








## Legislation/Policy

- Water Act, 1989
- Victorian Irrigation Drainage Program Strategic Direction
- Planning & Environment Act, 1987
- Irrigation Drainage Memorandum of Understanding
- Environment Protection Act, 1970
- Commonwealth EPBC Act, 1999



## Implementation

- Guiding strategy
- Detailed design
- Planning Permit/Planning Scheme Amendment
- Construction
- Land Acquisition
- O & M (including monitoring)



## Key Considerations





- Level of Service
  - Agricultural requirements
- Environmental
- Cultural
- Safety
- Community Engagement
- Community Expectations





## Key Considerations






## Operation of SWMS


- Maintain level of service
- Regulate connections
- Monitor impacts
- Recover costs





## Learnings

- Change is inevitable
- Sustainable irrigation requires effective SWMS
- Role and operation of SWMS often poorly understood
- Partnerships the key



## Further Information

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