

# RENEWED SURFACE WATER MANAGEMENT PROGRAM

UPDATE AUGUST 2020

## BACKGROUND

The Shepparton Irrigation Region (SIR) Surface Water Management incorporates traditional earthen drainage networks and Drainage Course Declarations (DCD)s and enhancement of catchment environmental features. An earthen drain, either GMW Primary Drain or Community Drain, is described as a Surface Water Management System (SWMS) which are built to provide more efficient and effective drainage of excess surface water resulting from either irrigation or rainfall. SWMS's are designed to typically remove run-off from irrigated land resulting from a 50mm in 24 hour (50% AEP) rainfall event and convey it to a natural stream. Improved whole of catchment surface water management:

- prevents excessive waterlogging on productive agricultural land;
- reduces the amount of water contributing to shallow watertables rising (which also reduces salinisation risks); and
- protects the environment and civil assets including roads from damage caused by high watertables and surface water ponding.

## WHAT HAS THE NEW PROGRAM ACHIEVED SO FAR?

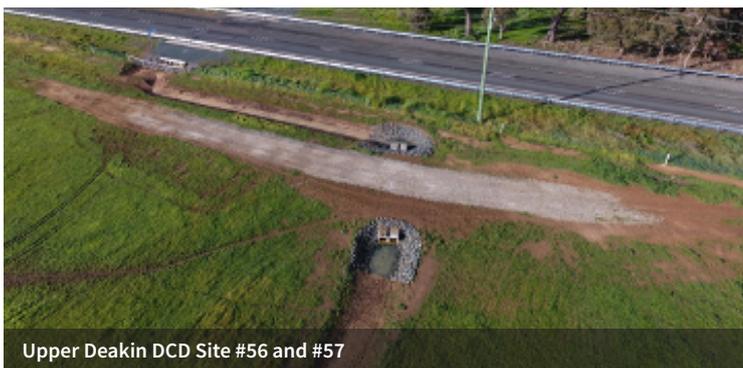
The renewed SIR Surface Water Management Plan (SWMP) has delivered two GMW Primary Drain extensions, the Stanhope Depression Drain Stage 2 extension and the Mosquito Depression Drain 40 extension. The program has also completed the implementation of a Community Drain, the Muckatah 2/3P SWMS. An additional community drain, Muckatah 3/8P SWMS is currently in the final engagement stages for a formal GMW petition to own, construct and maintain.

Since DCDs were approved by the Minister for Water in 2019, the obstruction removal program in Cornella Creek Catchment DCD has been successfully completed and works are on track for completion in Upper Deakin DCD by late August 2020. The Guilfus Congupna DCD was also recently approved, and the DCD works program is scheduled to commence in spring 2020.

Farm drainage infrastructure will be provided in areas that are not prioritised for new SWMSs in conjunction with the Whole Farm Planning Program and Hybrid SWMSs.

# UPPER DEAKIN DCD

<b>Location</b>	Between from the Tatura-Rushworth Road in the south-east to the Deakin Drain No. 16 outfall at McEwen Road (west of Stanhope).
<b>DCD approved</b>	16th April 2019
<b>Number of landowners</b>	112
<b>DCD Length</b>	22 km
<b>Area covered by DCD</b>	673 ha
<b>Catchment area serviced</b>	3,700 ha
<b>Number of obstructions</b>	46
<b>Obstruction removal works</b>	Commenced November 2019
<b>Status</b>	Works are currently 85% complete and are expected to be completed by August 2020.
<b>Works included</b>	Major and minor road crossing upgrades (including under boring and open trench methods), occupation crossing upgrades, GMW channel subways, outfall structure to connect DCD to Deakin Drain 16, cleaning and beaching of road crossings, farm channel subways, bank removal, rock ford crossings and cumbungi removal.



Upper Deakin DCD Site #56 and #57



Site #44 Outfall Before



Farm dam reinstatement



Site #44 Outfall After



Duplication of pipe in outfall property through the bank

# CORNELLA CREEK DCD

<b>Location</b>	Between Waranga Western Channel and Lake Cooper and Gaynor Swamp (north-east of Colbinabbin).
<b>DCD approved</b>	19th August 2019
<b>Number of landowners</b>	51
<b>DCD Length</b>	17 km
<b>Catchment area serviced</b>	43 km <sup>2</sup>
<b>Number of obstructions</b>	7
<b>Obstruction removal works</b>	Commenced February 2020 Completed May 2020
<b>Works included</b>	Minor road crossing upgrades, occupation crossing upgrades and bank removal.



# GUILFUS CONGUPNA DCD

<b>Location</b>	Between East Goulburn Main Channel and the two outfalls into Shepparton Drain 2/11 at Shepparton-Katamatite Road and Shepparton Drain 12 at Boundary Road (north-east of Congupna).
<b>DCD approved</b>	Approved in July 2020
<b>Number of landowners</b>	108
<b>DCD Length</b>	55 km
<b>Area covered by DCD</b>	7,467 ha
<b>Catchment area serviced</b>	34,767 ha
<b>Number of obstructions</b>	36
<b>Obstruction removal works</b>	Scheduled to commence in September 2020
<b>Works included</b>	Minor road crossing upgrades, occupation crossing upgrades, cleaning and beaching of road crossings, farm channel subway, bank removal, rock ford crossings and cumbungi removal.



Guilfus Congupna DCD – site inspection

# PRIMARY SURFACE WATER MANAGEMENT SYSTEMS (SWMS)

## MOSQUITO DRAIN 40

<b>Location</b>	The Mosquito Drain 40 is an extension of the Mosquito Main Drain along the Dhurringile Depression. It commences at the end of the Mosquito Drain Stage 10, continues east across the Murchison-Tatura Road and ends within the Dhurringile Prison.
<b>Length of drain</b>	4.1 km
<b>Area served</b>	567 ha
<b>Number of properties served</b>	5
<b>Works</b>	Commenced January 2018 Completed February 2019
<b>Works included</b>	The completion of the Mosquito Depression Drain 40 completed the Mosquito Depression Drainage System, which includes approximately 87 km of Primary SWMS and 34 km of CSWMS.



# STANHOPE DEPRESSION

## STAGE 2 EXTENSION

<b>Location</b>	West of Stanhope from north of the Midland Highway to Geodetic Road.
<b>Length of drain</b>	1.6 km
<b>Area served</b>	223 ha
<b>Number of properties served</b>	4
<b>Works</b>	Commenced April 2017 Completed December 2017
<b>Works included</b>	<p>The completion of the Stanhope Depression Stage 2 extension.</p> <p>The Stanhope Depression Drainage System in the Lower Stanhope sub-catchment which covers an area of 1,250 ha and the drain length is now 13.6 km.</p> <p>The Stanhope Depression is a major drainage course within the Shepparton Irrigation Area with a total catchment area of 13,600ha. The catchment is made up of two parts – the Harston or Upper Stanhope sub-catchment and the Lower Stanhope sub-catchment.</p>



Stanhope Stage 2 Extension during construction



Stanhope Stage 2 Extension

# COMMUNITY SURFACE WATER MANAGEMENT SYSTEMS (CSWMS)

## MUCKATAH 2/3P CSWMS

<b>Location</b>	Naringaningalook
<b>Length of drain</b>	4.6 km
<b>Area served</b>	630 ha
<b>Number of properties served</b>	6
<b>Works</b>	Commenced February 2019 Completed April 2019
<b>Works included</b>	Construction of 4,573.6 m of open earthen drain and various associated structures including combined road culverts and drainage inlets, drainage inlets, farm culverts and headwalls, diversion weirs, overflow sills and fencing.  The drain traverses three roads, one of which is under VicRoads control and the two gravel roads under Moira Council control.



Drainage inlet



Diversion weir



Overflow sill



Combined road culvert and drain inlet



Muckatah 2/3P CSWMS