SHEPPARTON IRRIGATION REGION (SIR)
REGIONAL CATCHMENT STRATEGY

Annual Report 2004/2005

PROGRAM: Sustainable Irrigated Landscapes- Goulburn Broken

PROJECT NO: 14998

PROJECT TITLE: Increasing Water Use Efficiency Through Strategic Water Harvesting – Shepparton Irrigation Region (Drainage Nutrient Removal Incentive Scheme)

SCHEME BACKGROUND:

The Drainage Nutrient Removal Incentive Scheme (DNRIS) was introduced in April of 1998 to encourage landowners to construct strategically located storages (drainage nutrient removal systems) to collect and use regional drainage water. The water and nutrients collected can be used productively, and are not lost to areas of the catchment where they may cause problems such as blue green algae blooms. These storages can increase the volume of water available to the irrigator and reduce the amount of nutrient rich water entering our catchments.

PROJECT TARGETS:

Long term:

1. Increase the amount of nutrient-rich water diverted from regional drains and used productively on farm by 25%.
2. Capture 10,000 ML of water savings from regional and farm drainage to be used for maximum public benefit.
3. Improve irrigation management across 50% of the newly drained SIR in the next 5 years.
4. Contribute significantly to the Goulburn Broken Water Quality Strategy goal of reducing phosphorous and nitrogen drain loads by 50% by 2016 through decreasing the amount of poor quality (high nutrient/salt) water leaving the catchment and flowing into environmentally sensitive waterways.

Short term:

1. Construct 5 storages per year providing a storage capacity of approximately 3,600 ML.
2. Divert 7,200 ML of water from the regional drainage system to prevent flows into the River Murray and improve water use efficiency on 4,500 hectares of irrigated land.
3. Retain 3.5t of Phosphorous and 14.0t of Nitrogen within the catchment.
4. Improve water use efficiency on individual properties, save irrigation water for other uses such as environmental flows and protect the catchment from poor quality drainage water

PROGRESS AGAINST TARGETS:

For the past couple of years the SIR has suffered dry conditions and the low rainfall and low irrigation water allocations has resulted in a reduced occurrence of high flow conditions in drains and therefore a reduced number of high flow storages being constructed.

This year however, with an increase in rainfall from past years, 7 storages were constructed which is a significant increase from the 2 constructed last financial year. The storages were mainly concentrated around the Murray Valley Water Service area with 2 x 200ML storages constructed by the same landowner at Wunghnu on Murray Valley Drain 5. There were 4 constructed in the Numurkah/ Strathmerton area on Murray Valley Drain 6, 2 x 100 ML storage's, 1 x 180 ML storage and a 220 ML storage. A 120 ML storage was also constructed in the Central Goulburn Water Services Area at Undera on Rodney Main Drain.

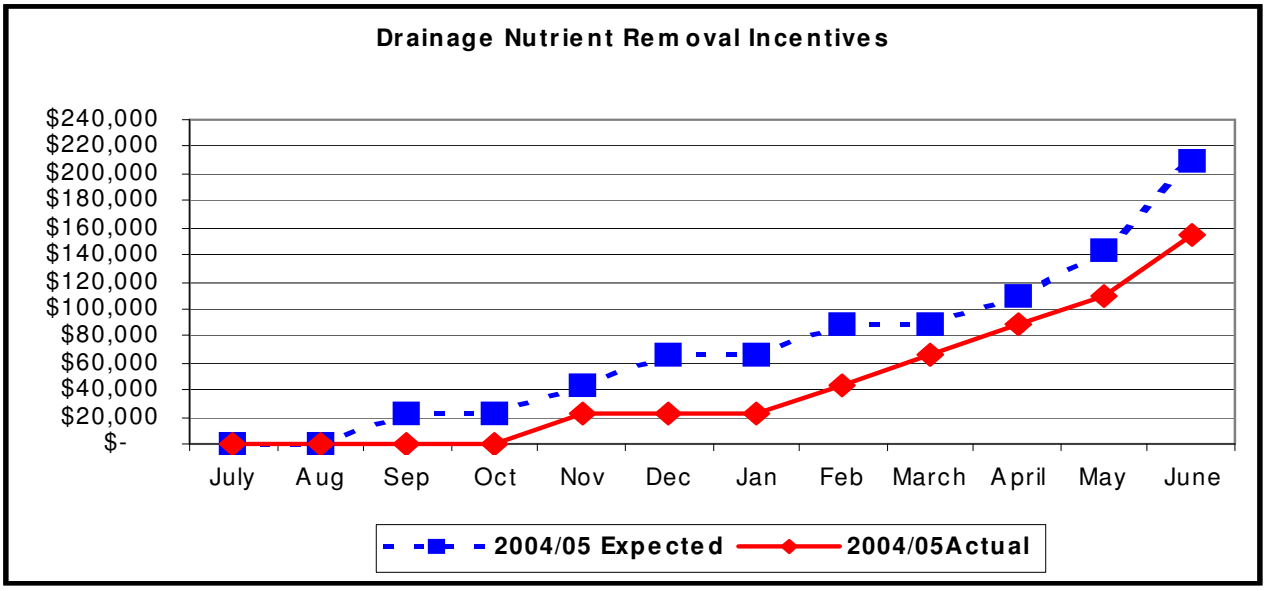
Another 3 were planned for this year, however one landowner decided not to construct and cancel the application for the Scheme due to costs associated with the construction of a storage. The other two storages planned have been postponed and will be completed in the 2005/2006 financial year.

Since the scheme commenced the total number of high flow storages built in the SIR, within the GBCMA area, with assistance from the incentive scheme is 30, with a storage capacity of 5,493 ML.

GRANT EXPENDITURE 2004/2005

	Expected				Actual					
	No Const	Grants	Total (Inc GST)	ML constructed	No const	Grants Paid	GST	Total Grants Paid	Total Cost - Landowner (estimates)	Total ML constructed
July	0	$ -	$ -	-	0	$ -	$ -	$ -	$ -	-
Aug	0	$ -	$ -	-	0	$ -	$ -	$ -	$ -	-
Sep	1	$ 20,000	$ 22,000	180	0	$ -	$ -	$ -	$ -	-
Oct	0	$ -	$ 22,000	-	0	$ -	$ -	$ -	$ -	-
Nov	1	$ 40,000	$ 44,000	220	1	$20,000	$2,000	$22,000	$ 255,000	220
Dec	1	$ 60,000	$ 66,000	200	0	$ -	$ -	$22,000	$ -	-
Jan	0	$ -	$ 66,000	-	0	$ -	$ -	$22,000	$ -	-
Feb	1	$ 80,000	$ 88,000	100	1	$20,000	$2,000	$44,000	$ 125,000	100
March	0	$ -	$ 88,000	-	1	$20,000	$2,000	$66,000	$ 150,000	100
April	1	$ 100,000	$ 110,000	100	1	$20,000	$2,000	$88,000	$ 160,000	180
May	2	$ 140,000	$ 144,000	50 + 55	1	$20,000	$2,000	$ 110,000	$ 120,000	130
June	3	$ 200,000	$ 210,000	100 + 200 + 130	2	$40,000	$4,000	$154,000	$ 540,000	200 + 200
Totals	**10**	**$ 200,000**	**$ 210,000**	**1335 ML**	**7**	**$ 140,000**	**$ 14,000**	**$ 154,000**	**$ 1,350,000**	**1130 ML**

Total expected July 04 – June 05 - including expressions of interest



RESULTS FROM DNRIS 2004/2005:

During August 2005, a majority of landowners with systems constructed were contacted to determine the volumes of water collected and used for irrigation. Samples of the water were taken and tested for salinity and phosphorous levels.

Water Service Area	**ML Capacity Constructed**	**Volume Diverted (ML)**	**Phosphorous Saved (tonnes)**	**Salt Saved (tonnes)**
Central Goulburn	1,788	2,110	2.73	897
Murray Valley	2,315	2,890	6.89	893
Shepparton	1,240	2,020	3.36	323
Rochester (GBCMA Section)	150	0	0	0
Total	**5,493**	**7,020**	**12.98**	**2,113**

**** Water samples and volume diverted data was not obtained from all 30 storage's – 23 were sampled.***

A majority of the 30 storages were able to divert and store water during 2004/2005. Most of the storages had water stored in them going into the 2004/2005 season due to the rain that fell during July 2004.

OTHER WORKS CARRIED OUT BY THE PROJECT TEAM:

- Project staff commenced work with the Community Surface Water Management Program on a full time basis. Monthly reporting on the DNRIS is now combined with the Community Surface Water Management Program monthly report.
- Project staff attended a two day Indigenous Partnerships Workshop in Shepparton.
- Project staff were involved in the DPI stand at the Royal Melbourne Show.
- Project staff continually attended Surface Water Management Working Group
- Project staff continued to be a member of the Community Monitoring Steering Committee (Goulburn Murray Landcare Network run committee for Waterwatch)
- Project staff completed a refresher of Level 2 First Aid training and undertook components of Level 3

PRESENTATIONS TO CONFERENCES/WORKSHOPS:

- Project staff delivered informal information sessions to members of the Community Surface Water Management Program on the aims and delivery of the project.

GEOGRAPHIC INFORMATION SYSTEMS:

This year has seen the continued use of Geographic Information Systems (GIS) to map where storages have been constructed and where storages are planned for the future. All Local Area Plan (LAP) boundaries have been added to the map to indicate any storages which fall into these areas. At present 9 of the 30 constructed storages fall into LAP boundaries.

	Actual – since 1998		
LAP AREA	**No**	**ML of storage**	**TOTAL COST (incl GST)**
Bunbartha/ Karimba/Zeerust	2	180	$33,307.49
Nathalia & District	4	1050	$66,000
Cornella	0	-	-
Dhurringile	0	-	-
Invergordon	1	150	$22,000
Nanneella	0	-	-
Muckatah/ Naring	1	65	$21,517.86
Wyuna	1	250	$20,000.00
TOTAL	**9**	**1695**	**$162,825.35**

CONCLUSION:

Renewed interest in the DNRIS was evident from landowners in the Shepparton Irrigation Region despite of, or as a result of, the drought and resulting conditions ie, low water allocations, low rainfall. Several new applications were submitted and 7 storage's being constructed. There are currently 2 approved applications leading into 2005/2006.

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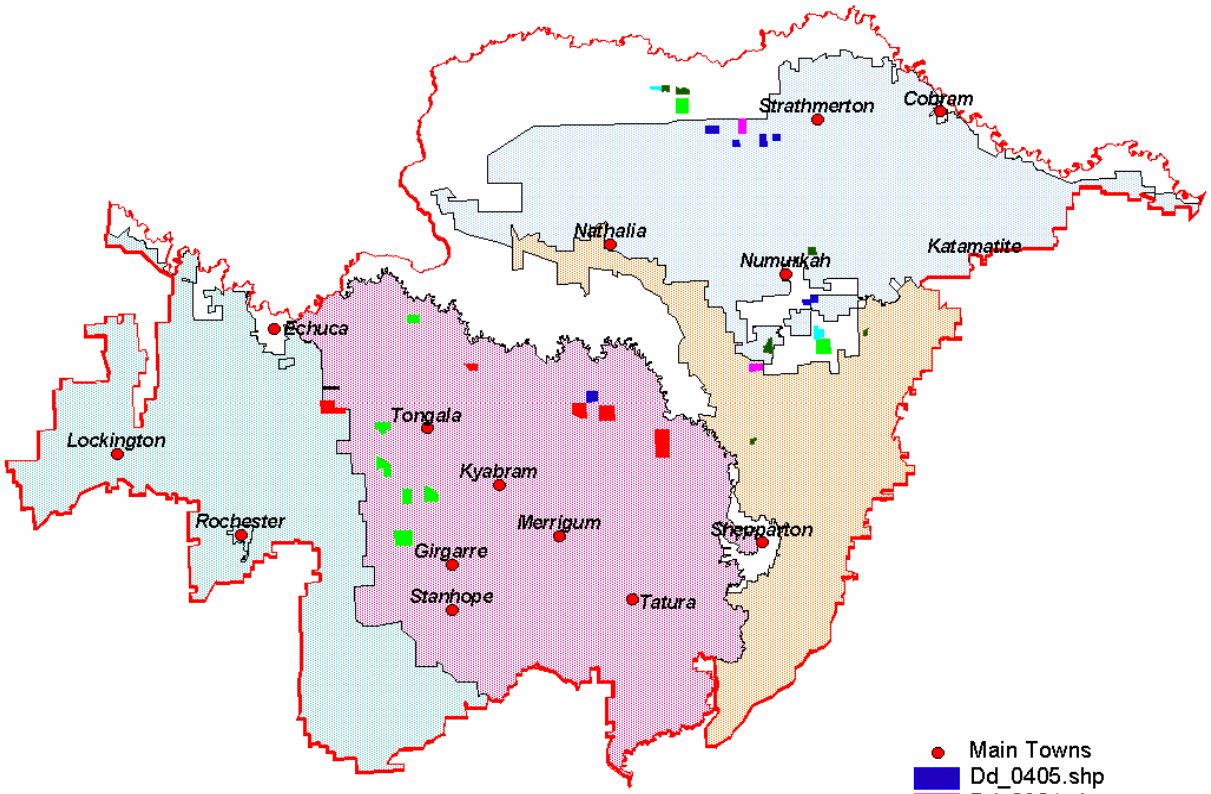
HIGH FLOW STORAGES BUILT IN THE SIR WITH ASSISTANCE FROM THE DNRIS WATER SERVICE AREAS



- Main Towns
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- Dd_0304.shp
- Dd_0203.shp
- Dd_0102.shp
- Dd_0001.shp
- Dd_9900.shp
- Dd_9899.shp
- SIR Boundary
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- Cent_goul_irrig_dist_s25.shp
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Victoria
The Place To Be

Echuca Centre,
PH 03 5482 1922
July 2005

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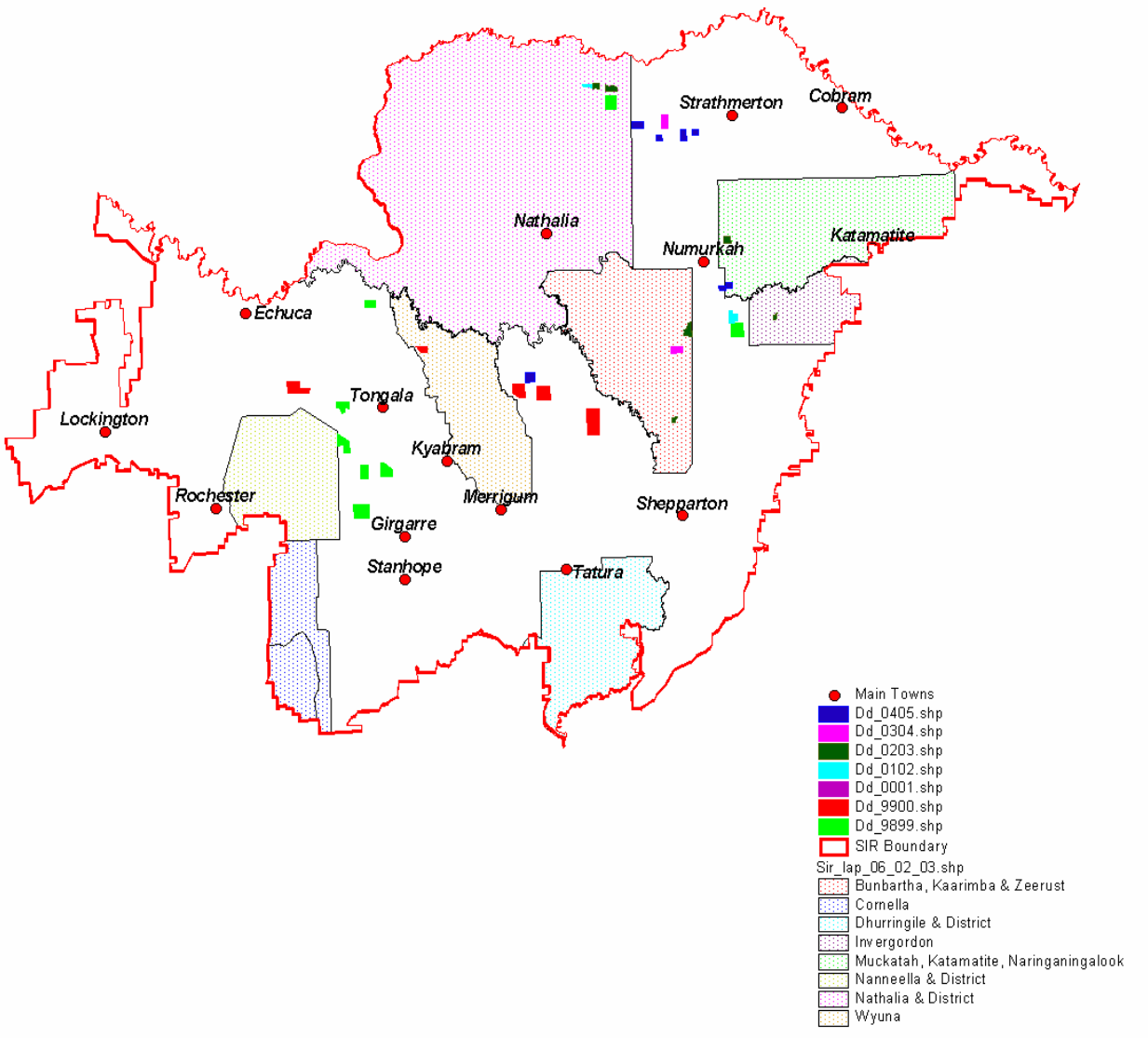

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