

MERRIGUM COMMUNITY FISHING LAKES

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ABSTRACT

Merrigum Fishing Lakes is a story of the rebirth of two disused dams in the Central Water district of Goulburn Valley Water (GVW). The project has been partnered with our local Burnanga Indigenous Fishing Club and supported by the local community. We have turned the dams into a community fishing and recreational hub for all to enjoy. The dams, one being a 50ML and the other a 10ML, are no longer required. 20 years ago, GVW connected Merrigum with Kyabram via a trunk main and the assets have laid idle since. The project is committed to using recycled material, examples being pontoon materials, trees and mulch salvaged from our waste farm and fish nesting logs supplied by Bushfire Recovery Victoria (BRV), bridges and pipework from GVW and Goulburn Murray Water (GMW). Fish supplied for release has been made possible by the joint relationship we have with Vic Fisheries and GMW. All fish, so far, have been rescued from a drained lake and channels nearby. We are getting great support from local government, businesses, and contractors and the project has also allowed myself and other GVW staff to take on a variety of roles and enabled unique experiences to build relationships with internal and external staff, contractors, customers, and community. Good result all round!

1.0 INTRODUCTION

Victorian Water agencies are encouraged through Water for Victoria 2016 to focus on recognising recreational value and providing recreational environments. In line with this GVW identified three sites spread evenly throughout the region and investigated each. This included the Merrigum WTP which is located within an irrigation farming district and was downscaled in the late 90's when a trunk main connected Merrigum to the Kyabram system. This created open space and redundant assets including two raw water storages of 10ML, within the WTP grounds, and a forgotten 50ML storage, to the east of a Goulburn Murray Water (GMW) irrigation channel.

The Merrigum Project started with a conversation I had with Steve Nash our Manager of Operations at GVW. Steve was discussing the fact we found a dam that was at Merrigum right under our nose and that many of us had no idea it existed.

When he said we need to have a look and see the potential of the site, I spoke up and said this is what kids and the community need in a small town to be able to go out fishing and enjoy what I did as a kid. He then said you're in! And away the adventure started, as the newly appointed Project Manager. I did comment maybe this is a way to also stop our storage fences from being cut.

We met onsite days later and you could not even see the dam floor let alone walk around it. Joining us on the site inspection was Corey Walker from our local Burnanga indigenous fishing club and they were keen to get involved as partners also and make that connection back to country. So the Dunyai Moira, meaning fishing lake in Yorta Yorta language, is starting to build up momentum. The collaboration with Corey was working well with his efforts getting BRV and Victorian Fisheries (VFA) onboard as well. This was sounding all good, but 20 years of neglect had certainly taken its toll on our newfound site.

An initial budget was established of \$595,000. This was the first stages of the project with the understanding that recycled reused materials would be used and there would be further expenditure required to establish a serviceable fishing site for all the community to enjoy.

Overview of 10 and 50 Megalitre Disused Dams



2.0 DISCUSSION

The Process to get where we are:

To get the project started I met onsite with neighbours, engineers, Burnanga and necessary GVW staff. Communications with adjoining neighbours included discussing access using easements on properties. This was met with positive outcomes with neighbours agreeing to the project concept. This made the project easier to undertake with clear communications being had all throughout the project. Without the neighbours consent this project would not have happened.

GVW engineers investigated the dam integrity and it was established that the dams were structurally sound. There were limitations such as removal of non-native trees, repairing embankments and ensuring dam levels were managed. Tree removals had to be managed closely to ensure the embankments weren't compromised.

The next challenge faced was getting value for money and using safest and cheapest methodology. This involved site meetings pointing and dreaming of the one-day beautiful lakes out there while looking through overgrown peppercorns and 4-foot grass, weeds, and snakes. This made me more determined than ever to make this succeed.

The following are the steps taken to get the site established to date:

1. Engaged contractor to remove non-native trees and weeds (local was subcontracted for this work)
2. Dam floors and walls were cleared and scraped, and re-batted using local contractor
3. GVW staff decommissioned unnecessary infrastructure to dams
4. Sourced recycled power poles and trees from wastewater farm to be used for pontoon poles and nest boxes for wildlife

5. Recycled poles were installed in dams
6. Donated pipes and bushfire recovery logs were placed on dam floors
7. During cooler months, the local CFA volunteers conducted a burn of the non-native tree piles. This was the most economical way of disposing of unwanted trees and scrub
8. Dams were filled utilising GVW assets and with the help of staff from waste farm
9. Field and Game volunteers erected nest boxes and continue to monitor and maintain them
10. Installed recycled pontoons from waste farm
11. Sourced rescue fish from VFA and GMW
12. Released fish and monitored
13. Re-sheeted tracks

With everything sealed up watertight, BRV logs donated and placed. Donated concrete pipes and nest box poles in the ground we were ready for the inaugural open day.

The day was an enormous success and the getting together of Burnanga, community representatives, neighbours, contractors, and contributors. This provided an excellent communication platform with contributors exchanging ideas, phone numbers and created separate conduits for the Burnanga to meet with the local community in a public forum.

We had good representation from GVW Management, local council, and the Media was also present.



Overview of 10 meg storage



Launch day at the 50-meg site includes GVW staff members and representatives from BRV and Burnanga.

Once the dams were filled the fish started to arrive earlier than expected so now, I have gone from an expert overnight in construction to a Native fish expert. Talk about variety in the job. So off to

Leitchville with VFA to pick up some big cod and yellow belly, what a tough job. I have to be careful not to rub it in to the others at work. Again, doors open to relationships with other organisations as we rescue some fish and discuss water quality issues with natives and forward planning.



The dams were now full, and it was time to unleash the next step and erect the 14 nest boxes and houses onto the dam. The boxes were made by our local lighthouse youths and the nests by a retired group of local members. Our local Shepparton Field and Game (FGA) Conservation officer David erected the nests with volunteers and began the monitoring program. The results were unbelievable with the obvious lack of habitat in the area the ducks moved in, and we soon had all boxes occupied.

FGA have 140 nest houses and boxes around Victoria being monitored. The ease of access to the Merrigum site on a weekly basis helped in the trial of different nest and box configurations due to predation from crows which was a great result enabling changes to be made right across all the others in the state.

2.1 Future programmed works

1. Bridge beams for pedestrian access between dams are being installed
2. Permanent recycled pipework to be installed to fill dams
3. Solar panels to run pumps
4. Installation of recycled poly pipe to circulate water between dams for water quality
5. Pontoon ladders and safety bouys are being installed
6. Security fencing around plant and separate public access
7. Excavation of rocks for planting of aquatic plants.
8. Placing of recycled Mulch from GVW farm around dams
9. Aquatic planting starts in March to go over a 2-year period of the entire site
10. Build carpark and fix drains
11. Installation of public conveniences
12. Signage for identifying wildlife and project sponsors

The remainder works on the project due to be completed by November 2023

The next step in ensuring completion of project is to source further funding as project costs are now \$650,000 whether this is through GVW, other local government authorities or private entities. In the meantime works underway include installing a bridge between the two storage dams. This is a collaboration between the neighbours allowing easement access and GMW to supply us with recycled bridge beams.

Tonx, our local contractor, will excavate a wetland area at the end of the 10MI storage. Remove rocks for native vegetation/aquatic planting, to create a habitat for wildlife and eco system.

Security fencing around plant and public site access to be done.
GVW staff and contractor to shift recycled mulch from Waste Farm to cover banks for planting.
Contractor to start planting of both sites with trees shrubs and aquatic plants over a two-year period using local community and Yorta Yorta (local indigenous community) labour opportunities.
Keep working on management of site options with Burnanga and the Merrigum community.



L to R – Representatives Victorian Fisheries Authority, Goulburn Murray Water and Goulburn Valley Water-with rescue fish

2.2 Challenges experienced.

With any project there are always challenges to work through. Here are some that were encountered:

- 4ft high long grass, blackberries and numerous peppercorn trees
- large fire hazard
- Continuous wet weather
- feral pests i.e., foxes
- Snakes
- Security i.e., motorbike trail riders, holes in fences
- Becoming a construction manager overnight
- Fish becoming available 12 months earlier than expected
- Learning fish biology i.e., food, spray compatibility, quarantine
- Large fish eating the ducks and ducklings
- Adding yabbys and shrimp into dams to supplement feed
- Organise fish have enough food by catching and checking weight and health
- Keeping the water Quality adequate for the fish and food to thrive by changing levels
- Communication with staff, neighbours, community
- Overspray of neighbours' crop (bugger!)
- Balancing my workload to operate my treatment plants and ensure water quality is not compromised.
- Ensuring occupational health and safety of all that worked on site
- Sourcing quotes to get best value for money
- Sourcing recycled materials that were fit for purpose
- Grounds maintenance due to ongoing wet weather

- Providing road access to facility
- Planning next stages to include necessary funding

3.0 CONCLUSION

The project has met the expectation of the water for Victoria focus. The outcome of the project has been a collaboration between GVW staff members, Other local authorities such as GMW, Greater Shepparton City Council. Other external contributors include CFA, BRV, VFA, FGA, Lighthouse, Burnanga Fishing Club, the Merrigum community and neighbouring owners properties. This has been invaluable as it has provided greater connections within the local community and it has been a successful project to ensure GVW gives back to the community.

The nest boxes are fully inhabited, and successful hatchings have been recorded. These recordings and observations, undertaken by FGA, have allowed for continuous modifications to deter predators to ensure longevity of native waterfowl. We have had predation from under the water by the larger native fish and through observations have found the hens and ducklings are moving off the dam and onto nearby channels and dams with their young. Advice from VFA by adding yabbies and shrimp through our yabbing program at GVW, has seen the dams getting stocked naturally. The nest boxes were built by a local not for profit group Lighthouse.

The dams have provided a breeding place for rescue fish, which will then in turn become a place for the community to undertake fishing.

There is still a substantial amount of work to bring the dams to a point where they will be open to the public which I will keep working on to ensure the success of this project.

4.0 ACKNOWLEDGEMENTS

Thanks to Steven Nash for giving me the opportunity to undertake the project management role. This has given me greater confidence to communicate and meet people I never would have met. I have learnt how to project manage and negotiate with other GVW departments and contractors. Thanks to my manager Jamie Madgwick and all my team for giving me the support to undertake this project. Throughout the project I have dealt with an Earthmoving contractor Tonx, Steve Wild who has been as passionate about the success of the project as well as David from FGA spending countless hours monitoring growth of wildlife.

Without the help of these people the project would not have been such a success.