

Science & Waterways Project REPORT



PHCC General Meeting – 17 April 2019

Steve Fisher, Program Manager, Science & Waterways

RLP – Wetlands and people: A community restoring the ecological character of the Peel-

Yalgorup Ramsar 482 Wetlands (The Ramsar Project)

Nov 2018 – June 2023 \$4,996,221

Quarter 3 Reporting

(Coordinated by Kim Wilson)

- Submitted Tuesday April 2nd. Invoiced amount for Quarter \$544,733.53 (Ex GST).
- We are on track to complete all Year 1 Deliverables by 30 June, as is required.

Science and Collaborative Management

Managed by Rick James

- Ramsar Technical Advisory Group meeting held 14 March 2019; 26 attendees. Following meeting Steve and Kim met with Mike Coote & Heidi Bucktin DBCA to discuss mapping of extensions, understanding the State Government process and an agreed way forward.
- Continued discussions and negotiations with key stakeholders (DWER and DBCA) regarding monitoring programs to better understand the hydrology of Lake Clifton
- Ecological Character Description Addendum and Ramsar Information Sheet update contract awarded to *Jennifer Hale Aquatic Ecology Consultant*. Project inception meeting ('phone linkup) held on 26 March. Ramsar TAG members contacted and invited to participate through provision of monitoring data and advice.
- Attended Lake McLarty TAG meeting DBCA office, Crawley on 28 March. Initial discussion regarding co-ordination of the State NRM Lake McLarty project and activities planned at the Lake under the Wetlands & People initiative.

Wetlands & People (Community Engagement)

Managed by Sharon Meredith

- This component is managed by Sharon Meredith Coordinator, Ramsar Community Engagement
- *Coordinated and delivered 11 community engagement and education events:*
- Organised a successful Shorebird 2020 Count (10th February) which involved facilitating shorebird identification workshops for volunteers through Ornithological Technical Services (18 January), and coordination of a program involving 77 volunteers split into 20 teams across the Ramsar Site.
- Coordinated the Clean Up Peel Waterways event throughout March which involved 17 teams cleaning up various sites across the Ramsar Wetland. 2 Workshops were conducted with Tangaroa Blue to support the Clean Up Event (22nd Feb).
- Coordinated a 5-minute preview of "Wetlands from Above" film showcased at the Performance for our Planet in Perth (27th March), Perth Symphony Orchestra providing a live musical performance. Negotiating with Mandurah Performing Arts Centre to produce a soundtrack to the "Wetlands from Above" feature film, show-casing the natural assets of the Ramsar Site.
- Supported Dolphin Watch Training and the production of 500 new Finbooks for the Dolphin Watch Program in Mandurah. The Finbook was provided to 130 volunteers who attend the Dolphin Watch Training event on the 27th of March 2019 and will continue to be distributed throughout the Peel community.
- Organised the Stints are Rad incursion to John Tonkin College (5 February) with Milly Formby introducing students to the importance of our Ramsar Site to migratory shorebirds, and teaching shorebird identification skills. Organised the 2nd Stints are Rad incursion to Coodanup College (10th April), John

Tonkin College helped lead the flock activity with 32 students, the activity was also supported by the Men's Shed, City of Mandurah and Milly Formby from Wing Threads.

- Delivered the first Plastic Micro-Fibre Program (April 2nd). The student group worked alongside researcher, Kate Born to survey the local shoreline at Coodanup. Samples were analysed by UWA and results will be presented back to the class in Part2 of the program in May. These students will be the first to play a vital role in understanding the extent of plastic micro-fibre contamination in the Peel-Yalgorup Ramsar Wetland.
- Coordinated the Shorebird Celebration event which celebrated the efforts of over 100 volunteers involved in Shorebird2020 and Shorebird Disturbance Project. PHCC and Birdlife presented the results from both the programs to the volunteers on the night (4th April).

On-Ground

Managed by Rick James

- Mike Griffiths commenced as the Wetlands Restoration Officer on 11 March to deliver this component.
- First major round of weed control completed in the Lower Harvey / Kooljerrenup Nature Reserve area (Herron Point Road south to the Harvey River estuary). Focusing on Cotton Bush, over 190 hectares was assessed with a major infestation treated along the Mayfield Drain along with numerous minor infestations elsewhere.
- Development of the Lake Mealup Bushland Action Plan is underway with a contractor engaged to develop the plan and the first day of field work completed on 28 March.
- A comprehensive program of rubbish cleanup has been completed in the vicinity of Lakes Mealup and McLarty. Approximately 20m³ of rubbish was removed from six locations (five sites around the lakes and one at Robert Bay). Work was coordinated with DBCA who removed a car body and disposed of asbestos waste that was located at two of the dump sites.
- Detailed consultation and planning work completed for upcoming on-ground work:
 - weed control at "Area H" on the east side of Lake Clifton
 - weed control adjacent to Ellis Road, east side of Lake Preston, and
 - site preparation, for future re-vegetation work, at DBCA's recently purchased "Nancarrow Block" at the south-east corner of Lake McLarty.
- All completed work entered into the MERIT reporting system, including associated mapping, at the end of the third quarter.

Alcoa Foundation: Connecting Corridors and Community: Restoring the Serpentine River

Oct 2017 – Oct 2020 US\$ 750,000

Managed by Jo Garvey supported by Jesse Rowley

- Community Environment Grants final summary:
 - 5 Agreements completed totalling \$75,387 of project funds and \$68,667 in-kind, to undertake fencing, weed control, revegetation and habitat enhancement of riparian foreshore areas along the Serpentine River.
- Ongoing projects (estimated at \$140,000) summary:
 - Upper reaches riparian restoration project (**planned**), aims to increase the effect and add value to the *REI PMD Offline Water Treatment* project. Partners could include Greening Australia and volunteers from the Alcoa Kwinana refinery.
 - Lower instream project (links to Fish Friendly Farms component of Peel-Harvey Estuary Grants): (**planned**). River bank rehabilitation demonstration site on the lower Serpentine River in a high disturbance area located across the river from the Coodanup boat ramp Potential soft

engineering to banks and native plant species to reduce bank erosion caused primarily by boat wash. Potential to collaborate with Peel-Harvey Estuary Grants-Fish Friendly Farms similar projects being undertaken on the Murray River.

- Water Hyacinth project (**commenced**), aims to reduce impact and spread of Water Hyacinth in the Serpentine River. PHCC funding provided to Landcare SJ to purchase and install booms at strategic locations in the Serpentine River to provide a physical barrier to contain this weed of national significance in areas that are easily accessible for manual removal.
- Dung Beetle project (**commenced**) is a collaborative project across PHCC programs with Paula (RALF) working with the North Dandalup and Serpentine Primary school to breed dung beetles. PHCC staff will release the beetles onto landholder properties on River Road, Karnup, from October 2019 to February 2020. This will decrease stable fly breeding areas and decrease nutrient run off into the Serpentine River. Importantly, the dung beetles will be monitored by local schools and landholders along the Serpentine River, thereby engaging them and increasing awareness and understanding of PHCC's role within Agriculture and NRM. We hope this will help us better engage with these landholders in River Care actions
- River action Plan_ (**commenced**)-through a partnership agreement with Urbaqua, we are undertaking river foreshore condition surveys & training for PHCC officers, volunteers and Alcoa graduate employees. Assessment of the lower to mid reaches of the Serpentine River will ascertain the river's current condition (within the study area) and assist PHCC in identifying priority sites for future onground works.
- River Health Assessments (RHAs) **planned** to commence in spring '19 and summer '19/20 with Murdoch University team in Serpentine River at existing and strategically located sites identified in the RAP survey work and recommendations. Murdoch will use DWER's South West Index of River Condition tools and methodology and will also value-add to the project by assessing the occurrence and distribution of Carter's Freshwater Mussel.
- Alcoa volunteers' field day event at Fraser's Landing Coodanup Serpentine foreshore reserve **completed** on 22 March included site maintenance with our friends from Alcoa & Men of the Trees in preparation for this year's National Tree Day on 28 July with City of Mandurah and Frasers Property Community Development team.
- The 3rd edition of the Connecting Corridors and Communities Newsletter is **ready for distribution** to 150 targeted audience and stakeholder members throughout the Serpentine catchment, providing an update on the project and NRM activities and events in our catchment

Royalties for Regions: Peel-Harvey Estuary Grants

Jun 2018 – Sep 2021 \$750,000

Managed by Jo Garvey supported by Jesse Rowley

- Stock enhancement of black bream in the Murray River: John Tonkin College students and teachers with guidance from Murdoch University's Alan Cottingham, have begun growing algae and rotifers as a food source for larval black bream supplied by Murdoch University. Approx. 5000 bream will be aquacultured and grown out at JTC for release as juveniles into the Murray River in late 2019.
- Fish Friendly Farms project: Jo Garvey and Andrew Matthews from OzFish Unlimited have begun scoping out potential sites in the Murray and Serpentine Rivers to install instream fish habitat modules and work with community members. The aim is to help enhance and restore instream and foreshore habitat for native fish species and macroinvertebrates.

- Harvey River Health Assessments – (PHCC & Greening Australia) - Sampling due to commence in summer 2018/2019 was delayed. It is now scheduled to take place at the end of April 2019, with the final report, including both sampling efforts completed in June.
- Harvey River Demonstration Reach project will be informed by recommendations from the River Health.
 - Urbaqua has been contracted to conduct surveys of the community to ascertain attitude to Best Management Practices, and how people value the river. These are due for completion in mid-April.
 - HRRT is working with Greening Australia to revegetate approx. 11 hectares of public land in Lake Clifton within the proximity of an existing project site along the Harvey River to increase the extent of riparian land in reasonable condition. Greening Australia are contributing \$15,600 through their Alcoa Foundation- funded 'Three Rivers' project.

Royalties for Regions: 1FTE Science Advisor

May 2018 – Oct 2021 \$345,000

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- Managed by Steve Fisher
 - Submitted a progress report to DPIRD for the 1FTE Science Advisor via Peel Development Commission on 5 April accompanied by invoice for 2019/20 - see also meeting to discuss 2017 State Election Commitment projects s 21 March below .
 - Attended the following meetings:
 - Alex Hams, (The Nature Conservancy), Mandurah Licensed Fishermen’s Association reps and Alan Cottingham (Murdoch University) on 5 March to discuss potential for establishing mussel reefs in the estuary
 - Steering Committees: Ramsar Community Engagement (13 March), Waterways (12 March), Regional Estuaries Initiative (12 March) and Science (21 March)
 - Ramsar 482 TAG Meeting on 14 March: provided a written report of actions since the previous (March 2018) meeting and presented an overview of PHCCs recently funded projects (State Govt. Election Commitments, Alcoa Foundation, NLP2 and Sate NRM (pending)
 - Fred Chaney (Taylor Robinson Chaney & Broderick) Andrew Hall (Tian An, the proponents) and Jane, Andrew, Caroline and George Walley on 18 March to discuss progress towards commencement of the Point Grey Marina development
 - a two-day Conservation Action Planning workshop for the Peel-Harvey Estuary, hosted by The Nature Conservancy in Mandurah 19 & 20 March. Attendees worked in groups to develop five project outlines to assess and address threats to the health of the estuary. I contributed to a project to develop a set of environmental accounts for the estuary.
 - Adrian Parker, Simone Hutton (Peel Development Commission), Tim Nicholas (Fisheries), Leyland Campbell (Recfishwest), Alex Ogg (WAFIC) and Malcolm Robb (DWER) on 21 March to discuss progress on 2017 State Election Commitments projects. I presented a summary of progress on Peel-Harvey Estuary Grants and 1FTE projects. Other projects discussed were the Voluntary Fisheries Adjustment Scheme and The Estuary Protection Plan.
 - Lake McLarty TAG meeting on 28 March: presented a summary of the work plan, budget and in-kind commitments by TAG members to the Saving Lake McLarty Phase 1 project (see below)
 - Rob Summers and Richard George (DPIRD) with Jane and Andrew Del Marco on 29 March to discuss future water sources for the Myalup Primary Industries Reserve and the implications of and potential for water harvesting and nutrient reductions at the Meredith Drain and Harvey River Diversion Drain.
 - Peel Bright Minds Steering Group (5 April), Teachers Network(21 February) and Volunteers Group (26 March) to continue PHCCs support of this initiative
 - Assisted in the following submissions:

- To the Shire of Murray on 26 March, recommending that the development application for commencement of the Point Grey Marina works not be approved.
- A potential 2019 federal election commitment to fund The Australian Centre for Water Science - Stage 1, jointly with the City of Mandurah, integrating their proposal for creating a Waterways Data Array (Internet of Things) with PHCC's Waterways Research Centre (formerly the Peel Waterways Institute – Stage 1) on 2 April
- Completed the following speaking engagements all of which link to delivery of the Ramsar Project:
 - Interview with ABC Radio 720 (Afternoons with Gillian O'Shaughnessy) describing the ecological character of and threats to the Lake Clifton thrombolites aired 7 March
 - Lecture to John Tonkin College Surf Science students 22 March as a guest speaker at their first term camp. The presentation, Watery Science: Caring for our Ramsar Wetlands of International Importance was attended by approximately 90 students, parents and teachers including visiting students from Singapore
 - After dinner presentation to the Rotary Club of Mandurah on 25 March attended by approximately 25 members and friends
 - Presentation to approximately 130 Dolphin Watch trainees on 27 March on geomorphology, values of, and threats to the estuary
 - After dinner presentation to the Rotary Club of Pinjarra on 4 April attended by approximately 40 members and friends.

This completes the series of "Ramsar 101" Master Classes for 2018/19 which has included:

- 10 presentations (690 attendees, 10 groups)
- 2 radio interviews (6MM and 720 Perth)
- 1 SHARE Event (50 attendees)
- 2 half day school excursions (170 attendees, 2 groups)
- Total 910 people, 13 groups plus radio audience.

**- State NRM: Saving :Lake McLarty Phase 1: March 2019 – June 2021
\$350,859**

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- Funding proposal by Andrew Del Marco, project inception by Steve Fisher with lots of assistance from Kim Wilson.
 - Revised Work Plan submitted to amend budget (requested \$351,859, awarded \$350,859)
 - Initial round of consultation and co-ordination took place at the Lake McLarty TAG meeting on 28 March (see Science Integration above).
 - Schedule of Milestones and payments submitted Thursday 4 April, accepted 8 April
 - Contract executed by PHCC 10 April, just need to deliver now most likely through Ramsar Ongrounds (Mike Griffiths) and Scott Young but yet to be confirmed.

1. Events (22 February to 18 April 2019): PHCC sponsor or presenting

22 February	Cleanup Peel Waterways Workshops (Mandurah and Pinjarra)
1 – 31 March	Cleanup Peel Waterways Month
5 March	Cockatoo Count training (BirdLife WA, sponsored by PHCC)
6 March	Raptors: Adaptable hunters of the suburban jungle and rulers of the forest canopy
10 March	Black Cockatoo Workshop
22 March	National Tree Day Site preparation
13 March	Ramsar TAG (PHCC Event)
19 & 20 March	Conservation Action Planning workshop (supporting through 3 Rivers 1 Estuary)
27 March	Dolphin Watch Training (PHCC presenting and co-sponsoring)

27 March	Performance for our Planet
2 April	Plastic Micro Fibre Program
4 April	Shorebird 2020 Count Celebration
10 April	Stints are Rad
15 April	Fairy Tern Management Workshop

2. Work Health Safety

There are no incidences to report