Science & Waterways Project REPORT



PHCC General Meeting - 22 October 2020 Steve Fisher, Program Manager, Science & Waterways

Welcome Charlie Jones / Vale Sharon Meredith

Sharon Meredith will be leaving the Science and Waterways team on 5 November to pursue some of life's other challenges outside of PHCC. Thank you Sharon for the way you have captured the hearts and minds of our community over the past four years, spreading the wise use of wetlands message. Your enthusiasm and dedication will be sadly missed.

On a brighter note, we welcome Charlie Jones to the team taking over the reins from Sharon as Community Engagement Coordinator - Wetlands and People. Charlie will be working with us for a few days here and there from 9 October before starting in a full time capacity on 27 October.



From left: Charlie Jones, Sharon "The Stint" Meredith and Dudley Dolphin

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

Year 3 Quarter 1 Reporting

Coordinated by Steve Fisher

- Submitted the Year 3 Quarter 1 Outputs Report and the Annual Progress Report for Year 2 in MERIT
- Services completed to date for Year 3 are as follows (the total number to be delivered for Year 3 is shown in parentheses for each):
 - 1 baseline data sets collected and/or synthesized (5 required)
 - 40 communications material published (75)
 - 2 field days held (2)

- 0 on-ground works on private land (8)
- 6 community / stakeholder engagement workshops (28)
- 0 ha controlling access (60)
- 0 ha treated for pest animals, initial (49)
- 0 ha treated for pest animals, follow up monitoring, baiting & trapping foxes, feral cats (90)
- 0 ha debris removal (10)
- 1 agreements established Landholder Works Agreements (4)
- 0 monitoring regimes established (0)
- 6 days maintaining monitoring regimes (17)
- 0 ha area surveyed for fauna (0)
- 0 fauna surveys conducted (3)
- O additional fauna survey specific to cormorant breeding conducted ()
- 0 flora surveys conducted (0)
- 3 negotiations with community, landholders, farmers, 0traditional owners, industry groups (6)
- 65 days of project planning and delivery (260)
- 5 planning and delivery documents for delivery of the project services (20)
- 34 ha of initial weed removal (83)
- 0 ha of follow-up weed removal (70)
- 15 ha revegetated -preparation, planting and fencing at 6 sites within Ramsar Site and catchment
 (15)
- 0 days site preparation (0)
- 3 water quality surveys conducted (10)
- 0 weed distribution surveys conducted (0)
- 4 sites identified for potential onground works (8)

Ramsar Component 1: Science and Collaborative Management

Managed by Rick James, Coordinator Wetlands Science and Management

Yalgorup Lakes Surface Water Quality Monitoring (YLSWQM) Program

- **19 sites are being assessed** covering the 17 discrete waterbodies that comprise the Yalgorup Lakes system.

Regular monthly monitoring continued (August & September). Sampling team included volunteer Sebastian Jones and Jennie Beeson.



Groundwater survey work at Lake Clifton (DBCA's Gavin McGrath & Josephine Hyde)

- The Lake Clifton thrombolites: Assessing groundwater flows and thrombolite health
 - A major component of PHCC's NLP2 Wetlands and People project

- **Assessing the flow of fresh / brackish groundwater to the thrombolites** is important as this flow is fundamental to their ecology.
- A trial survey was conducted with DBCA & UWA staff using Electrical Resistivity Tomography (ERT) which can be used to differentiate groundwater layers. This provides a 2D picture of the various layers underground based on their relative conductance.

Support to the Mayfield REI work

- Organised and undertook a water quality monitoring round to assess six of the Mayfield REI "small scale intervention" sites.
- Carried out an assessment of the riffle structures that had suffered a partial failure at the Butler property (Cookernup).

Ramsar Component 2: Wetlands & People (Community Engagement)

Managed by Sharon Meredith, Coordinator, Ramsar Community Engagement

- Incursion to St Joseph's Primary School (7 September)
 - St Joseph's Primary School is the first school in the Peel to sign up to the Children's University Program which provides extra-curricular learning opportunities for children. PHCC has been working in collaboration with the Children's University to create worksheets and educational packages that educates students on the Peel-Yalgorup Wetland. These worksheets were delivered to a class of 30 students who have now enrolled in the Children's University program.
- Waterbirds Workshop (17 September)
 - Introduced the main waterbird species of the Peel-Yalgorup Wetland to a group of 30 beginner
 birdwatchers. The session focused on building knowledge around waterbird identification, wetland ecology, and surveying techniques. The workshop is followed by three wetland field trips.
- The Wetlands Weekender (10 & 11 October)
 - Successfully coordinated and delivered the Wetlands Weekender 10 and 11 October. The event program included:

Saturday 10 Oct

- Estuary Tour & Nature Walk by boat from Mandurah to Mariners Cove (2.30 pm 5.30 pm).
 - Attendees enjoyed a boat tour along the Peel-Harvey Estuary on board the Dancing Dolphin. Vicki Stokes from BirdLife and Steve Fisher from PHCC shared stories about the wetland environment. The boat docked at Mariners Cove and attendees joined local Zoologist Sarah Way to explore the Creery Wetlands on foot. On the boat ride home, Indigenous Community Leader George Walley provided cultural stories while patrons enjoyed a selection of local wines and produce. Attended by 60 people.
- Movie Night at Reading Cinemas (6 pm 9 pm)
 - The Australian classic **Storm Boy (2019)** was screened at Reading Cinema's Mandurah. The event **also included an informative presentation on the Peel-Yalgorup Ramsar Wetland, The National Shorebird Monitoring Program, and the Pave the Way Clean up. Attended by 70 people.**

Sunday 11 October

- Wonders of the Wetland (9 am- 2 pm) where Coodanup Foreshore Reserve came alive with free, family-friendly events, including:
 - a selection of **vibrant market stalls** with quality local arts and produce.
 - entertainment, live music, cultural storytelling

- The colourful kid's corner had activities such as **crab origami**, **paint a shorebird stencil**, **nature playdough**, **wetland waterbugs and a scavenger hunt**.
- 605 people officially registered.
- The Dog's Breakfast (Coodanup foreshore 9 am 11 am)
 - Hosted **by City of Mandurah Rangers and BirdLife, inviting local dog owners to learn** how to walk their dog around the estuary whilst also protecting local wildlife. Breakfast was provided to attendees. **Attended by 59 people.**
- Pave the Way Clean Up at Coodanup foreshore (10 am 12 pm)
 - Pave the Way, is a community Clean Up Event that has been running since 2014. Inspired by
 the award winning photographer David Rennie, the event was designed to clean up the
 Coodanup Foreshore of litter, and pave the way for migratory shorebirds which arrive on
 the shorelines of the Peel-Yalgorup System at this time of year. Attended by 82 people



A montage of the Wetlands Weekender events.

- Key stakeholders for the event were:
 - BirdLife WA
 - City of Mandurah
 - Mandurah Cruises
 - Ways to Nature
 - Mandjoogoordap Dreaming
 - Tangaroa Blue
 - Coastal Waste Warriors
 - Estuary Guardians
 - Pinjarra Men's Shed
 - Wetland Centre Cockburn
 - Peel Bright Minds
 - Mandurah Environment and Heritage Group
 - Pinjarra Lions Club
 - Street Hassle

- Reel it In Clean Up Event (25 October)

DBCA has scheduled the cleanup event for the 25 October. The event works with local stakeholders
to clean up two sites in Mandurah across one weekend with a particular messaging about the
hazards discarded fishing gear presents to aquatic species. Last year over 200 people attended the
event that involved PHCC, Mandurah Cruises, Tangaroa Blue, Coastal Waste Warriors, City of

Mandurah, Mandurah Volunteer Dolphin Rescue Group and Tackle World. PHCC is supporting this event and will provide lunch to all the participant's cooked by the Falcon Lions Club.

- World Wetlands Day Conference (2 February 2021)
 - Cockburn Wetlands Centre accepted PHCC's invitation to host the World Wetlands Day conference at Mandurah Performing Arts Centre in February 2021. PHCC has offered to support the conference through hiring the Boardwalk theatre, provision of wetland tours, presentations for the conference, and aligning festival events to celebrate:
 - World Wetlands Day
 - 30th Anniversary of the listing of the Peel-Yalgorup Wetlands as Ramsar 482 (1990) and
 - 50th Anniversary of the Ramsar Convention (1971).

Ramsar Component 3: On-Ground

Managed and delivered by Mike Griffiths, Wetlands Restoration Officer with support from Rick James and Steve Fisher

Revegetation

 Final work carried out at north side of Lake Clifton to complete revegetation activities commenced in 2019/20 including removal of old tree guards and fencing debris, and control of Cottonbush at revegetation sites.

Weed control

- Watsonia control carried out across 19 ha on Jeegarnyeejip Island in the Murray River delta under an agreement with Shire of Murray to follow up past control works as part of a long-term management plan.
- Watsonia control carried out along 3 km strip of shoreline at south-west Harvey Estuary, complementing control work in past years leaving scattered patches (see photo below). Pink Gladiolus and Cape Tulip were targeted as secondary priorities. Contactors have also treated Watsonia, South African Pigface and other weeds in Coodanup Foreshore Reserve close to Nairns Bird Hide.



Weed contractor treating Watsonia at Harvey Estuary foreshore

- Landholder Works Agreements

- Discussions held with three landholders with property visits for potential on-ground works through targeted Landholder Works Agreements (LWAs). These potentially involve controlling Cottonbush, Wild Fig, Watsonia, and garden escape weeds. Targeted LWAs are used for weed control and other on-ground works on private properties to complement work on the adjoining Ramsar Site.
- Project planning discussions held with stakeholder organisations/agencies to establish potential
 Ramsar on-ground projects; to date this has included DBCA, City of Mandurah, Shire of Murray and
 Shire of Waroona. These discussions cover potential works until June 2023 in existing project areas and
 in potential new areas in and around the Ramsar wetlands.
 - Site visits for potential projects
 - Access Control
 - Birchmont boat ramp, east side to look into access issues and damage by 4WD vehicles in Kooljerranup Nature Reserve (with DBCA).
 - Lake Clifton north in Yalgorup National Park to inspect access issues between national park and private property subject to Landholder Works Agreement (with DBCA).
 - Weed control and other on-ground works. visits to
 - Harvey Estuary south-west foreshore area to scope treatment of Watsonia and other cormous weeds (with DBCA).
 - Nairns/Coodanup Foreshore Reserve area to scope treatment of Watsonia and other weeds in consultation with land owner and City of Mandurah
 - Lake Goegrup fringing conservation areas to inspect issues with weeds and access issues in
 Nature Reserve i.e. damage by motor bike and 4WD vehicle activity (with DBCA).
 - Samphire Cove Nature Reserve to inspect condition of feral animal-proof fence with view to contributing to upgrade and maintenance (with DBCA, Friends of Samphire Cove).

- Weed Treatment Planning

Planning discussions held with stakeholder organisations/agencies (coupled with stakeholder project planning meetings) to review weed priority list compiled in 2019 and to map locations of selected weeds. To date, this has been with same stakeholders as for project planning meetings (DBCA, City of Mandurah, Shire of Murray, Shire of Waroona) but will also include other parties and individuals with local weed knowledge. This additional information is to guide the Wetlands and People project work in its remaining years.

Community Engagement – Onground works

Lake Mealup Preservation Society and Friends of Samphire Cove consulted to discuss potential works. Several potential activities with both groups were identified.

Alcoa Foundation: Connecting Corridors and Community: Restoring the Serpentine River Oct 2017 – Oct 2020 US\$ 750,000

Managed by Jo Garvey, Coordinator Healthy Waterways, supported by Jesse Rowley

Communications & Events

- Four articles featured in Edition 10 of Wattle and Quoll
- **Draft versions of short films** are being reviewed by PHCC's communications team and ensuring that **PHCC's styling** criteria is being met
- **Alcoa media release** featured in the **Mandurah Mail** focusing on the Hymus Creek Planting Day and Cultural Knowledge Sharing event (21 August)
- Planning underway to install **interpretive signage** at the **Karu Bilya Wetlands Restoration site** to **inform and showcase** the work achieved through the **Restoring the Serpentine River project**.
- Waterways Steering Committee meeting held 24 September to provide update to committee members and receive feedback and endorsement for the Serpentine River Action Plan.
- As part of an excursion, the Rivercare Team conducted a Macroinvertebrate activity with 72 students and 10 adults from Greenfields and Mandurah Primary Schools at Riverside Gardens along the Serpentine River

Karu Bilya Wetlands Restoration Project

- **Follow-up weed control** undertaken within the **Karu Bilya Wetlands restoration** site and surrounding **Banksia Woodlands** this October targeting priority environmental weeds including arum lily, cape tulip and watsonia
- Natural fertiliser trials underway to observe changes over time between fertiliser applied and non-fertiliser applied sites within the Karu Bilya Wetlands revegetation areas
- Continuing to work with Water Corporation, Main Roads and Department of Water,
 Environmental Regulation and private landholders to help reduce illegal access into the Karu
 Bilya site and neighbouring Peel Main Drain project area

Hymus Creek Restoration Project planting and cultural knowledge sharing event, Lowlands Farm

- This project has been acquitted with the following activities completed:
 - 2000 native species planted and guarded,
 - 1.6km of fencing installed and
 - Weed control over 3.8ha

Serpentine River Action Plan (RAP)

- The **Plan was endorsed** by the Waterways (Rivercare & Ramsar On-grounds) **Steering Committee** on the 24th of September
- Following recommendations from the RAP, the team has received quotes from two suppliers to develop Concept Plans at two sites along the Serpentine River; Karnup Road and Wilkinson Road. A further two suppliers were contacted however declined to quote. The team is now reviewing the quotes and will send recommendations through to the Waterways Steering Committee for feedback and endorsement

Dung Beetle Project

This project is ready for acquittal with the final report being due by the end of October.

Dolphin Monitoring Program

- **DBCA** have now obtained all the necessary **approvals** to install four **monitoring cameras** at dolphin stranding hotspot zones(PHCC contributed to the payment of two cameras, the other funders include the City of Mandurah and the Mandurah Volunteer Dolphin Rescue Group)

- The Department is now **liaising with local community groups** and **stakeholders** to **identify locations** to install the cameras

- Water Hyacinth

- The team is continuing to work closely with Landcare SJ, Envirapest (weed contractor) and the Department of Communities to maintain the highly aquatic weed invasive water hyacinth.
- Minor outbreaks of water hyacinth have occurred in the Serpentine River however, the
 Department has been notified and continue to control these outbreaks.
- **Local canoe and kayaking groups** continue to **notify officers** of when water hyacinth has been sighted whilst travelling through the river.

Community Environment Grants

- Two (out of five in total, with one already acquitted) more community environment projects have been acquitted with the following activities being completed:
 - Wilkinson Road Restoration Project:
 - 2.1km of fencing to exclude livestock from wetland and to minimise illegal rubbish dumping and vandalism on property
 - Weed control over 24ha targeting high priority environmental weeds including cottonbush, arum lily and cape tulip
 - 800 rushes planted within wetland to connect corridors for native fauna species
 - Feral animal control activities targeting roaming feral cats and foxes
 - Environmental Repairs on Riverlea Farm on the Natural Section of the Serpentine River
 - 250m of fencing to help stabilise banks at stock crossing sites within the Serpentine River
 - Riffle repair to increase habitat for native fish and macroinvertebrates as well as to encourage temporary sediment accumulation at stages of high flow
 - Stock crossing repair to provide livestock with a river drink-point. The granite
 rocks utilised are designed to allow cattle to enter the river for only a short
 amount of time
 - Weed control treatment over 11ha, protecting a further 200ha

River Health Assessments

- Sampling now fully complete with the second round of monitoring completed in September
- The **final report** along with the **South-West Index of River Condition** (SWIRC) will be submitted by the end November by **Murdoch University**

Fish Community Index Sampling

- To take place **early December** by **Murdoch University** to calculate health indices for the estuarine components of the Serpentine River based on the structure and function of the fish community and the benthic invertebrate community. These indices are calculated by sampling present day fish and benthic invertebrate communities and comparing against historical data. In this way, a report card showing a decline, improvement or no change in the condition of the estuary can be produced. A similar approach has been implemented in the Swan-Canning. **(this sampling also taking place in the Murray River, see Royalties for Regions: Peel-Harvey Estuary Grants)**

Funding beyond 2020

- PHCC has been successful in securing **US\$600,000 from Alcoa Foundation** to continue to the **Three Rivers One Estuary Initiative** by restoring the Serpentine River as well as expanding

restoration works into the Murray River through the 'Healing Bilya: Restoring the Murray and Serpentine Rivers' project.



Dave Morgan from Murdoch University undertaking River Health Assessments



Stock crossing repair and fencing through 07_ALC_RIC_2018 CEG

Royalties for Regions: Peel-Harvey Estuary Grants

Jun 2018 – Sep 2021 \$750,000

Managed by Jo Garvey, Coordinator Healthy Waterways, supported by Jesse Rowley

Communications

- Article titled 'Filling the Peel-Harvey Estuary to the bream with the important fish species' distributed by RecfishWest to showcase the Black Bream project
- Stock Enhancement of Black Bream in the Murray River (see also 1FTE Science Advisor Report)
 - Black bream broodstock have spawned (12 October)
 - Black bream fertilised eggs **transferred to John Tonkin College** (JTC) Aquaculture facility on **13 October**
 - The bream fingerlings will be raised by JTC students under guidance from Murdoch University
- Harvey River Demonstration Reach / Marron, more than a meal
 - Have acquired all the necessary approvals to install logs in the Harvey Main Drain to provide habitat for native fish (scheduled to take place January 2021). The Water Corporation will undertake the installation
 - **Annual stakeholder meeting** scheduled for **October 23** in partnership with Greening Australia to discuss the **progression of restoration works along the Harvey River.**

Fish Friendly Farms

- PHCC is supporting several projects occurring in the Peel Catchment that align with the Fish Friendly Farms initiative with the **aim to have a landscape scale impact rather than an 'ad-hoc' approach**.
 - Enhancing fish habitat (1) **supporting TNCs Shellfish Gardening Project** in the Peel-Harvey Estuary (see also 1 FTE Science Advisor below)
 - Enhancing fish habitat (2) investigating occurrence of black pygmy mussels in the Murray River
 - **Carter's freshwater mussels in farm dams** continuing to support Alan Lymbery (Murdoch University) when required.

- Fish Community Index Sampling planning underway to calculate health indices for the estuarine components of the Murray River based on the structure and function of the fish community and the benthic invertebrate community (this sampling also scheduled to take place in the Serpentine River see Alcoa Foundation, Connecting Corridors and Communities Restoring the Serpentine River)
 - This will be undertaken by Murdoch University's Fish Health Unit Team

River Health Assessments

- Quotes have been obtained from Murdoch University, Department of Water and Environmental Regulation and Wetlands Research and Management to undertake river health assessments at three sites in the Murray River.
- The team is now assessing the quotes to determine the supplier to undertake this activity.
- **Both theory and practical training** has been requested to skill-up PHCC Officers to allow river health assessments to be undertaken in-house in the future.
- The Project's 'Delivery Components' are tracking well with meetings and planning sessions to discuss future works with Murdoch University, the Nature Conservancy and community.

State NRM: Saving Lake McLarty Phase 1: addressing acidification, hydrology and habitats

March 2019 – June 2022 \$350,859

Managed by Rick James, Coordinator Science and Management, supported by Jennie Beeson

- Jennie Beeson inducted and familiarized with field sites
- Developing a scopes of work for (i) assessment of acid sulfate materials and (ii) establishment of a
 network of groundwater bores underlying the lake bed and adjacent catchment in consultation with
 DWER's Brad Degens
- Contracted consultants (Urbaqua, 14 September) to undertake a feasibility study to assess various options for augmenting the water level in the lake.
- Hosted the Lake McLarty Technical Advisory Group meeting on 8 October, convened by DBCA and attended by representatives from DWER, Friends of Lake McLarty Shire of Murray and BirdLife. Also attended by other community members with an interest in the lake including Mike Craig (UWA), Peter Muirden and Mia D'Allessio. Each presented the work they had or were planning to undertake to improve the condition or better understand the threats to the condition of the lake.

Royalties for Regions / City of Mandurah / PHCC 1FTE Science Advisor May 2018 – Oct 2021 \$468,000

Managed by Steve Fisher, Program Manager, Science and Waterways (in addition to oversight of the projects above)

Attended the following key meetings with:

- Mike Venarsky, Adrian Pinder and Geoff Barret (DBCA) and Rick James on 20 August to discuss collaboration on the lake Clifton monitoring component of the Wetlands and People (Ramsar 482) project
- Neil Carroll and Allan Claydon (City of Mandurah, CoM) and Rick James and Jane O'Malley on 27
 August to discuss Neil and Allan's roles in CoM's new structure and the potential for collaboration
 on projects, including the Data Array (CoM) and Water Research Infrastructure Program (PHCC).
 Followed up with a meeting with Neil on 6 October.
- Denise Crosby (Cockburn Wetlands Centre) and Sharon Meredith and Jane O'Malley on 31 August to explore the opportunity to co-host the World Wetlands Day conference in Mandurah in February 2020.

- Fiona Valesini and Theo Kearing (TNC), Bronte Grant (DWER), Thelma Crook, Jo Garvey and Jesse
 Rowley to explore opportunities for Noongar training and employment and engagement through our various waterways restoration projects
- PHCC **Science Steering Committee** on 3 September
- Ian Teakle and Matt Barnes (BMT Global), Rod Peake (Shire of Murray), Matt Hipsey and Peisheng Huang (UWA) and Jane O'Malley on 15 September to discuss the progress of the modelling work for the proposed Point Grey development
- PHCC Waterways Steering Committee on 24 September
- Matt Hipsey (UWA), Fiona Valesini (TNC), Caroline Knight and Jane O'Malley to present and discuss the findings of the ARC Linkage Project Balancing estuarine and societal health in a changing environment with the Environmental Protection Agency at their meeting on 17 September.
- Lake McLarty Technical Advisory Group meeting on October 8 (see Saving Lake McLarty above)
- Mark Cugley and Benson Todd (DBCA), Myri Riddy (Mandurah Cruises), Sally Kirby (Mandurah Volunteer Dolphin Rescue Group, Krista Nicholson (PhD Candidate) and Paddi Creevey (PDC) on 7 October to progress the rescue of River, a Peel-Harvey resident dolphin entangled in fishing line. As a result of this meeting a Dolphin Incident Support Group was formed with the above membership which met on 15 and 22 October. NB. River is yet to be rescued.
- The Steering Group of Peel Bright Minds on 20 August and 22 October.

Made the following presentations

- A walk and talk about wise use of wetlands with 78 Year 3 students and 10 adults from Greenfields
 Primary School and Mandurah Primary School on 17 Sep on their excursion to the Serpentine River
 near Lake Goegrup. George Walley also provided commentary on Noongar perspectives and values
 with Thelma Crook running a water bug identification activity.
- Organised for **Sarah Way (Ways to Nature) and Jo Garvey and Jesse Rowley** to run similar activities with **72 Year 4 students and 10 adults** on 17 September.
- A walk and talk with 64 Year 5 students and 10 adults from the two primary schools on their excursion to the Lake Clifton Thrombolites, the Dawesville Channel and Seascapes with George Walley and Sarah Way on 22 October.
- Together these three excursions reached a total of 214 students and 30 adults.
- Commentary to approx. 65 participants in the Estuary Cruise Event, part of the Wetlands Weekender on 10 October.
- Presented a brief introduction to the Ramsar 482 Site and its ecological character to approx. 70 attendees at the Movie Night at the Wetlands Weekender on 10 October.
- Provision of Advice / driving projects to assist in the restoration of Peel Waterways
 - Our application to the Alcoa Foundation Grants for Healing Bilya-Restoring the Murray and Serpentine Rivers project Dec 2020 Dec 2023 was successful, securing US \$600,000 (2021-2023).
 - Contributed to PHCC's submission to the Shire of Murray on their Southern Palusplain Strategy (12
 October).
 - Participated in a workshop on 9 September organised by DPIRD (Fisheries) to perform a risk assessment of the impact of fishing practices certified by the Marine Stewardship Council for the Peel-Harvey Estuarine Fishery on the ecological health of the Peel-Harvey Estuary. The workshop was attended by various representatives of DPIRD including Emily Fisher, Kim Smith, Danielle Johnston, Brett Wise, Steve Taylor, Linda Bellchambers (all Fisheries Scientists) and Tim Nicholas (Fisheries Management), Frances D'Souza (DWER), Vicki Stokes (BirdLife WA), George Walley,

Brett Brenchley (CoM), Adrian Parker (PDC), Neil Loneragan (Murdoch University); Damian Bell (Mandurah Licensed Fishermens Association) and Recfishwest.



Greenfields Primary School students investigate water bugs during their Serpentine River excursion

Events (PHCC sponsoring or presenting - see also Wetlands & People Community Engagement)

- Previous events (20 August to 22 October):
 - 10 &11 October 2020 Wetlands Weekender
- Future events (after 22 October)
 - 24 & 25 October 2020 Reel it In Clean-Up
 - 30 October 2020 **Shorebird Mentor Program Workshop2**
 - 2 February 2020 World Wetlands Day Conference

Work Health and Safety

- No incidents or near-misses to report