

# PROJECT PROGRESS REPORT

5500 Alcoa Foundation: Connecting Corridors and Communities  
Restoring the Serpentine River  
Agenda item 6. for meeting discussion



## ALCOA DELIVERY TO DECEMBER 2019

Meetings:	
March	The Rivercare team attended a meeting along with other stakeholders, hosted by Landcare SJ to discuss water hyacinth in the Serpentine River, especially in the Keralup area. PHCC is supporting LCSJ to purchase two booms to help capture future breakouts of water hyacinth (18 attendees).
	PHCC and Greening Australia came together for a planning meeting, followed by a site visit to the Serpentine River Wetlands project site to discuss proposed demonstration reach projects. This also included a site visit to George Brook to look for potential synergies and collaborations in future works (3 attendees).
April	Staff Presentation on deliverables to the PHCC Board.
May	As part of the Three Rivers One Estuary Initiative, PHCC, The Nature Conservancy and Murdoch University joined Alcoa Foundation president Rosa Garcia and others on an Estuary cruise to showcase projects. Alan Cottingham (Murdoch Uni) discussed the collaborative project he is undertaking with blue mussels and communicated how this can align with other projects such as PHCC's Serpentine River project (7 attendees).
	Workshop potential Dung Beetle Breeding Program involving North Dandalup Primary School and landholders in the River Road project site. The aim is to breed and introduce colonies of spring dung beetles ( <i>Onthophagus vacca</i> ) onto neighbouring farms and at a number of identified properties along the Serpentine River (8 attendees).
June	Cultural consultation meeting was held with Traditional Owners and the PHCC Waterways team to provide an update on onground activities and gather cultural knowledge on specific sites (12 attendees).
July	PHCC Rivercare team met with National Tree Day organisers (Frasers Landing/City of Mandurah) to discuss and offer techniques on how to improve the success rate in restoration activities at the Serpentine River foreshore reserve and surrounding bushland as part of this year's planting event (4 attendees).
	PHCC's Rivercare team, Department of Communities (DoC) and the Canoe Trail Friends came together to discuss the 'Water Hyacinth' project, and where the PHCC could offer assistance through the Alcoa Foundation Serpentine River project. One outcome was that community will be the eyes on the ground and keep the DoC informed of the water hyacinth movements in the river as part of the ongoing monitoring program (6 attendees).
September	Meeting with UWA Zoology Dept. to understand dung beetle monitoring techniques and potential synergies between projects. UWA are undertaking a two year monitoring project across multiple sites (including Pinjarra and Mardella) to establish a baseline that indicates what type of dung beetle species are inhabiting the South-West. As part of the PHCC Dung Beetle breeding project, UWA have offered to train PHCC staff and volunteers in how

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to correctly monitor and trap dung beetles. Furthermore, UWA will identify any species caught in dung beetle traps (3 attendees).

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The DBCA invited PHCC Rivercare team to a meeting to discuss possible participation in the estuary clean-up event (19<sup>th</sup> October). Which evolved from the recent death of 18 month of dolphin calf Luca who frequently visited the Serpentine River and died as a result of being entangled in fishing line. Sites in around the Serpentine River and Creery Wetlands were chosen due to the significant amount of fishing that is seen within these areas. The event and activities link well with the Dolphin Camera Monitoring Project (13 attendees).

## Events:

March

National Tree Day 2019: Site Preparation Activity  
PHCC, Alcoa and Men of the Trees came together to hold a field day event at the Frasers Landing core conservation reserve to prepare for National Tree Day. Site maintenance was the main aim which included removing tree guards from dead plants and adjusting existing tree guards (10 participants).

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July

SHARE in the Shed, Knowledge sharing  
Topics included updates from presenters on River Health Assessments, River Action Plan, Water Hyacinth, Dolphin cameras (63 community members attended).

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National Tree Day 2019: Planting and Activities  
Frasers Property Group and City of Mandurah event at Serpentine River foreshore conservation reserve. The Alcoa Foundation project supported this event, funding the purchase of 2000 biodegradable tree guards and hardwood stakes (650 community members attended).

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National Tree Day 2019: Planting  
Alcoa Volunteers and Environmental Managers from around the globe visited and planted seedlings at the Frasers Landing National Tree Day site. This was followed by an afternoon tea at the Frasers Landing Community Centre. Stakeholder's part of the Three Rivers One Estuary Initiative also participated in the event (19 attended).

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October

Clean-Up Event  
To expand on the Dolphin Camera Monitoring Project on the Serpentine River, the Rivercare team held a stall in Mandurah, and joined the Tangaroa Blue Beach Clean-up weekend for 2019. The team assisted on the day, cleaning up fishing lines, ropes and other debris that is severely impacting the river's and estuary aquatic wildlife. They also helped to audit data which will be used to inform future work (More than 200 volunteers collected 635kg of rubbish from land and in-water).

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November

Cultural Consultation Workshop with local Noongar Elders and representatives to identify areas of cultural value and significant sites to help inform the River Action for the Serpentine River lower reaches. Discussions will also include protocols and due diligence whilst undertaking activities along the Serpentine

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	River and opportunities for Noongar engagement and participation in future actions recommended through the Plan (14 attended).
<b>Grants:</b>	<b>See CEG Update Report</b>
02_ALC_MCR_2018	Wilkinson Road Wetlands Restoration Project
03_ALC_JAC_2018	CCC - Restoring the Serpentine River
06_ALC_LCA_2018	Serpentine River Foreshore Environmental Management Maintenance Project
07_ALC_RIC_2018	Environmental Repairs on Riverlea Farm on the Natural Section of the Serpentine River
10_ALC_LSJ_2018	Feral Animal Control on Private Properties
<b>NVIS Monitoring (National Vegetation Information System)</b>	
	Vegetation monitoring using the National Vegetation Information System (NVIS) methodology has been completed at three sites – Lowlands Reserve, St Ives Reserve & Hymus Swamp Reserve. This data will be shared with other organisations and will be used to help inform future restoration work along the Serpentine River. A further four sites will be surveyed which will be identified through the River Action Plan.
<b>River Action Plan:</b>	
	The draft plan is nearing completion and will be submitted to the PHCC for review, before being finalised by December.
<b>River Health Assessments:</b>	
	River health assessments are taking place this week at five locations identified from the River Action Plan ground-truthing and assessments. The Murdoch team is currently training PHCC officers, Alcoa Graduates and volunteers.
<b>Ongoing Projects:</b>	
North Dandalup Primary School Dung Beetle Breeding Program:	PHCC officer attended a Dung Beetle workshop in Collie to gain a greater understanding of the benefits of Dung Beetles and their biology. The information and contacts made on the day have proved beneficial with the possibility of expanding the project, sourcing beetle species and looking at research projects with the University of WA (1 attendee). In September, NDPS received 50 individual <i>O. vacca</i> beetles that they will now breed and eventually release onto properties adjacent to the Serpentine River.
Water Hyacinth Project:	Envirapest have completed their control. Through ongoing funding Landcare SJ has purchased two booms that will temporarily contain any new breakouts of water hyacinth seen in the Keralup area of the Serpentine River. One temporary boom has been placed at the northern boundary, and the second one is to be placed at a strategic location to be determined (early December). The Department of Communities has one temporary boom in with another three booms ready to be deployed to capture any future outbreaks.  Once there is a handle on the Water Hyacinth's growth over the coming weeks, local community and Alcoa volunteers will join in activities to remove by hand any new breakouts of the weed.

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Dolphin Camera Monitoring Program:	<p>Funding has been provided to DBCA to purchase and install surveillance cameras in dolphin stranding hotspots along the Serpentine River.</p> <p>Unfortunately, overtime many dolphins have been died in the Serpentine River due to becoming stranded, therefore these cameras will allow a quicker response time in the future. Furthermore, the footage captured on the cameras will go towards the Dolphin Watch Program and citizen science projects.</p>
Bindjareb Noongar Water Perspectives Plan:	<p>Through the Serpentine River project, PHCC and Department of Water and Regulation are supporting this partnership project driven by the Bindjareb Noongar Community. It entails looking at the implementation and evaluation of an Aboriginal Waterways Assessment Program for the Bindjareb country. Support will be provided by PHCC in the delivery of Noongar engagement i.e. technical support, consultation, meetings, site visits and storytelling.</p>
Serpentine Bilya Wetlands Restoration project <b>(Waiting approvals)</b>	<p>Scope of works is complete. The project aims to increase the effect and add value to the REI PMD project and also act as a long term demonstration site to enable research into trial methods of riparian restoration. DBCA have submitted a support letter for this project. We are currently waiting for DPLH approval before work can commence.</p> <p>Once approvals have been attained work can commence and as part of the works for 2020, the PHCC invited Greening Australia to participate, to take advantage of newly formed relationship with the Baldvis Secondary College, which have been working with GA at Lowlands Reserve.</p> <p>The timing will also coincide with the end-of-project celebration, in which the PHCC will hold an event with all three partners of the Alcoa Foundation's 'Three Rivers, One Estuary Initiative'.</p>
Hymus Drain Demonstration Reach Project <b>(Currently working with landholders)</b>	<p>Scope of works is complete. The project aims to increase the condition and values of the tributary situated on a private landholding, and the Serpentine River. The site is situated between the 'Projects' reference site Lowlands and Hymus Swamp CCW wetland. It aims to act as a long term demonstration site to enable research into trial methods of riparian restoration. The landholder and manager currently work closely with the local high school and plan to use the site to train and educate students in restoration techniques and best practices. DBCA have submitted a support letter for this project. We are currently waiting for DPLH approval before work can commence.</p>
Banksia species infill, Rs37090 <b>(Waiting approvals)</b>	<p>As part of the 'Serpentine Bilya Wetlands Restoration project', the PHCC invited Birdlife WA to join in activities at the southern end of the site. Activities will include planting of Cockatoo food plant species. This would align and build partnerships between Alcoa Foundation's 'Three Rivers, One Estuary Initiative' and 'Community cockatoo recovery initiative' projects.</p>

## Community Environment Grant Update

### **02\_ALC\_MCR\_2018; Wilkinson Road Wetlands Restoration Project**

Project in progress and scheduled for completion 31/08/2020.

On-ground activities completed:

- 800 seedlings planted over 0.22 ha
- 1km of fencing (1km of fencing to still install)
- 16ha weed control of cotton bush and arum lily (follow-up spray required and scheduled)
- Feral animal control, traps and camera monitoring (camera footage being analysed week of the 25<sup>th</sup> November)

### **03\_ALC\_JAC\_2018; Connecting Corridors and Communities – Restoring the Serpentine River Project**

Project acquitted and finalised on 31/08/2019.

On-ground activities completed:

- 695m of fencing to protect and conserve existing areas of vegetation and project revegetation site
- 2.8ha weed control of cape tulip, African lovegrass, bridal creeper, couch and kikuyu
- 1295 seedlings planted across 2.8 ha
- Area protected: 6ha

### **06\_ALC\_LCA\_2018; Lowlands Farm – Serpentine River Foreshore Environmental Management Maintenance project**

Project towards completion.

On-ground activities completed; site visit scheduled for acquittal before December 2019.

- 0.06km of fencing (bank stabilisation)
- 8ha weed control of various weeds
- Stock crossing repair (in partnership with 07\_ALC\_RIC\_2018)
- In-stream riffle repair (in partnership with 07\_ALC\_RIC\_2018)

### **07\_ALC\_RIC\_2018; Environmental Repairs on Riverlea Farm on the Natural Section of the Serpentine River project**

Project towards completion.

On-ground activities completed; site visit scheduled for acquittal before December 2019.

- 0.25km of fencing (bank stabilisation)
- 11ha weed control of various weeds including arum lily
- 285 feral animal control of rabbits and pigs (in-kind contribution)
- Stock crossing repair (in partnership with 06\_ALC\_LCA\_2018)
- In-stream riffle repair (in partnership with 06\_ALC\_LCA\_2018)

### **10\_ALC\_LSJ\_2018; Feral Animal Control on Private Property's project**

Project in progress and scheduled for completion June 2020.

- Working closely with Peel-Harvey Biosecurity Group to deliver feral animal control
- Surveillance cameras installed to monitor the movement of feral animals such as rabbits and foxes
- Cameras installed on the 18<sup>th</sup> of October across four different properties (three on River Road & one on Wilkinson Road)
- Footage scheduled to be analysed week of the 25<sup>th</sup> of November
- If foxes or rabbits have been captured, plans will be put in place to help eradicate them from the area