

Rubbish Tip to Riparian Corridor: Transforming our degraded Yarra River Abbotsford riverbank 2020-23

Strategic Plan (Version 3)

Abbotsford Riverbankers

March 2021

Table of Contents

Introduction	3
Location, land parcel ownerships and managements	4
Location	4
Ownerships and managements of Area	4
Geological and Ecological Background of Area	6
Overview	7
Goals	7
Stage 1 (April 2018-June 2019)	8
Stage 2 (August 2019) December 2020	9
Upskilling (August-December 2019)	9
Implementing Weed Control Strategy (August 2019-December 2020)	10
Revegetation in high-value areas (October 2019-December 2020)	10
Stage 3 (January 2021-January 2023)	11
Stage 4 (2023 onwards)	12
Our key partners and supporters	13
Links to larger strategic plans	14
Appendix 1 (Geological, ecological & cultural background)	15
Appendix 2 (Species list)	18

Introduction

Our Birrarung Yarra River in Abbotsford has a complex legacy of pastoral, industrial and residential usage. Its banks – the rich escarpment scrublands and shrublands of prehistoric lava flows – have shrunk to an erosion-prone, weed-infested ribbon of low biodiversity value.

Abbotsford's natural environment remains poorly mapped, poorly understood and degraded. The Yarra River corridor in Abbotsford is a patchwork of public and private land with inconsistent or non-existent management.

Revegetation has been erratic, inevitably succumbing to severe reinfestation without ongoing coordinated land management. This in turn has exposed the flash floodplain to the kinds of human activities that go with lack of understanding or care: littering, weed spraying, vegetation removal and vandalism. Riverbank sections are vulnerable to rapid erosion and collapse with every major rain event.

Yet our community cherishes this stretch of the river corridor and seeks healthy relationship with it.

Daily, over 2000 Abbotsford residents and visitors from across Melbourne, Victoria and internationally pass along the Capital City Trail, jogging, cycling and walking by the river. In 2020, Covid 19 saw these numbers rise.

Yet there remains an invisible wall of understanding, connection and beneficial care. Too often, wellintentioned activities have resulted in adverse outcomes for the river corridor. This wall needs to be dismantled if our riverlands are to be healthy, protected and loved.



Organisation overview

Abbotsford Riverbankers formed to be advocates and stewards of this area.

We have boldly set out to harness community love and fragmented activity for strategic, powerful and lasting action that helps our riverlands rehabilitate the way Nature intended.

Our ethos is to be part of a community where people do important, meaningful things together.

We're committed to fostering intergenerational stewardship of our riverlands. This will ensure a cycle of continuous care that doesn't regress into neglect of the Yarra corridor. We're doing this with innovative approaches based on best-environmental best practice. This is anchored in healthy relationships between community, statutory bodies, government and other stakeholders.

To achieve this, we are serious about strong governance, management and communications, with continuous improvement for the organisation.



We're grounded in the realities of contemporary urban life with pressing work career and family commitments. Building great relationships with people helps us inspire and encourage them to commit to environmental stewardship on a regular basis on a sliding scale of frequency.

Our core team is setting the example onsite through environmental and worksite safety bestpractice environmental practice. Our Committee is leading strategically through planning fostering strong strategic relationships and ensuring that expectations are clear for all for longterm success.

Through natural and assisted regeneration and reconstruction we're gradually establishing locally occurring ecosystems that enable indigenous species to adapt and evolve.

Vision, Mission and Core Strategies

Our Strategic Plan is anchored in our Vision, Mission and Core Strategies:

Our vision

Help contribute towards a Birrarung Yarra River corridor that is healthy, protected and loved.

Our mission

Help transform the degraded Yarra riverlands in Abbotsford into a healthy, resilient and biodiverse river corridor for the benefit of Nature and the community alike.

Our core strategies

- Achieve long-term weed control
- Revegetate the corridor with indigenous plants and help degraded soils to self-repair
- Enable indigenous species to survive, thrive, adapt and evolve by using natural regeneration, assisted regeneration and reconstruction approaches
- Achieve this by following agreed principles, strategies and actions across the group
- Foster intergenerational environmental stewardship
- Learn by doing and by continual self-directed learning and other life-long education.

Our communications strategy

Statement of Purpose

The purpose of our Communications Strategy is to:

- Help us achieve our overall organisational mission
- Engage effectively with stakeholders, internally and externally
- Demonstrate the success of our work
- Ensure that our stakeholders and the broader community understand what we do
- Change perceptions, attitudes and behaviour around environmental stewardship.

We aim to be strategic more broadly by aligning our vision, mission, strategies and goals with policy settings, contributing to policy development (see page 12) and by implementing acknowledged best practice for ecological rehabilitation.

We also aim to amplify our influence through best practice on the ground, educational activities, strategic partnerships and communication.

We are implementing our strategic plan through 4 key planks:



Our key strategic, governance and management, communications and volunteer outreach activities, aligned to our vision, mission and strategic goals, are summarised below.

Streamlined site management under Committee direction, to ensure consistency in implementing agreed principles & processes, consistent messaging and achieving our mission through our strategic goals.

Amplify Riverbanker messaging on our ethos & good practice through speaker events, social media communication and policy contributions.

Education & lifelong learning are a core strategy, to foster environmental stewardship & secure long-term commitment to our mission.

Outreach to educational & professional entities to:

foster environmental stewardship & lifelong learning provide volunteering opportunities foster funding partners. Rehabilitation and stewardship of the Yarra River corridor in Abbotsford Continuous improvement in governance processes, to provide a common language for knowledge & skills critical for successful stewardship of the organiation.

Induction sitewalk program for establishing clear expectation around onsite safety & good practice and

fostering high quality volunteering and integenerational environmental stewardship.

Key



Communication & partnerships Volunteering & memberships Governance & management Lifelong learning

Organisational Structure and external relationships



Operational Plan

Our operational plans and policies are summarised below.

Governance

Plan/policy	Who
Strategic plan	Committee
WHS policy	President, Secretary
Finance policy	Treasurer
Weed management policy	President, Communications Officer, Committee
Research on funding opportunities	Committee
Communications policy	Communications Officer, Committee
Conflict resolution policy	Committee
Committee recruitment and succession planning	President, Communications Officer, Committee
Climate emergency policy/position	Committee
Professional development (Committee, other volunteers)	President, Communications Officer, Committee
Rights and care of volunteers	Committee

Management areas

Area	Who	Comments
Parks Vic zone (riverine, riparian)	President, Committee	 We also have some Parks Vic support Melbourne Water is a stakeholder and must be part of planning/permissions/activities

Crown Land Turner St Triangle (riverine, riparian)	President, Committee	 Council and Melbourne Water permissions We also have Melbourne Water crew support
Sea Kayak Floodplain (riparian)	President, Committee	 Council and Melbourne Water permissions We also have Melbourne Water crew support
Johnson St Bridge to concrete retaining wall (riverine, riparian)	President, Committee	 ASIC (management not formalised; permission not formally given as at 19 June 2020) The least supported zone, except for riparian zone along narrow floodplain
Site-wide activities		
Timber hauling and terracing	President, Committee	
Working sessions	President, Committee	 Former 'mini bees' incorporated into regular Monday, Thursday, Saturday sessions. Larger formal working bees are based around peaks in seasonal requirements (weeding, planting, watering, terracing), attended by the core team and Riverbanker network, not ad-hoc volunteers. All sessions attended by Riverbankers core team and network except in special circumstances. E.g., funded workshops.

Project funding

Description	Who	Comments
Melbourne Water \$6250 funds allocation for planting and weeding management in riparian zone:	President, Committee	 In Parks Vic zone *high priority Below Turner St *high priority Turner St to open bluestone drain Below concrete wall
City of Yarra \$2000 for planting in 8 sites in ASIC riverine zone; plant guards & safety equipment	President, Committee	Riverbankers to send orders to City of Yarra for them to order and pay.
Funding applications (includes research & calendarisation)	Committee	

Partnerships and advocacy

Key stakeholder and contact person	Role	Who
City of Yarra: • Craig Lupton & Craig McGrath • Adrian Valente (and City Works) • Glen Williames (Arborist crew)	Anything relating to the Main City Trail, traffic management, litter collection, drainage, tree lopping along Trail, Crown/ASIC land not under Parks Victoria jurisdiction	President
Melbourne Water (Nathan Mattinson and ground crew)	Anything relating to the waterway and immediate floodplain, drainage	President
Parks Victoria (Designated Ranger Rodolfo Maia)	Anything related to the Parks Victoria-managed section of Crown land	President
Yarra Riverkeeper	Advocacy for the Yarra River, representation on YRKA Advocacy Sub-committee for community groups	President
Victorian Environmental Friends Network	General networking and 'environmental group best practice' in the 'Friends of' space	President
Australian Institute of Architects (Indigenous Ecosystems Nodes & Corridors project)	Dialogue on reconciliation ecology in urban built environments; possible workshop partners	President

Communications

Action	Who
Website	President, Commutee (Communications Officer)
Facebook	President
Newsletter	President
Dialogue with pedestrians	Committee (leading on strategically focused conversations), all Riverbankers
Signage and resources	Committee

Location, land parcel ownerships & managements

Location

Our area of operations is located 5 kilometres from Melbourne's CBD along the Yarra River in Abbotsford.

North - the area is bordered by a section of Parks Victoriamanaged Crown land which abuts the south-east edge of the land parcel owned by 88 Trenerry Crescent.

South - Johnston Street Bridge.

East - the Birrarung Yarra River.

West - the rear of properties on Trenerry Crescent.

Edinburgh CLIFTON HILL Gardens Rathd äI. ð Queens Pde **Clifton Hill** The Quarries Yarra Bend Princes St Park Roseneath St Alexandra Pde Eastern Ewy Yarra Bend Park Yarra Bend Public Elgin St Golf Course Studley Johnston St Śt. VICTORIA PAR Park nston St ton Fitzrov Collingwood Abbotsford Carlton COLLINGWOOD Gipps St Gardens Gertrude St Studley Park Rd Yarra Bvd Langridge ŝ Victoria Pde Δ+ 13+ Victoria Pde Nelson St NORTH RICHMOND Albert St PARLIAMENT Victoria St Elizabeth St Baker St Fitzroy East Melbourne Gardens WEST RICHMOND S OLIMONT Δ A Melbourne Jolimont EET Denham St Yarra Bridge Rd S Park Alex Melbourne Park Richmond IC HM OND lympi.

Land parcel ownerships and managements

Loc	ation	Landowner	Managements and authorisations
1	Floodplain from Johnston Street Bridge to concrete retaining wall (where Main City Trail path meets the wall edge)	ASIC (Australian Securities and Investments Commission)	 Abbotsford Riverbankers (<i>de facto</i> site management, ASIC authorisation) Melbourne Water waterway manager and principal stakeholder; and caveator, based on drainage reserve close to Johnston St bridge)
2	Floodplain below concrete retaining wall, to Turner Street exit ramp	Crown land	 Melbourne Water (waterway manager and principal stakeholder) Abbotsford Riverbankers (<i>de facto</i> site management) City of Yarra (pathways and verges)
3	Floodplain between Turner Street exit ramp and open bluestone drain	Crown land	 <i>Riparian section (Main City Trail to river edge)</i> Melbourne Water (waterway manager and principal stakeholder) Abbotsford Riverbankers (<i>de facto</i> site management) City of Yarra (pathways and verges) <i>Riverine section (Main City Trail to end of Turner Street)</i> Abbotsford Riverbankers (<i>de facto</i> site management) City of Yarra (pathways and verges) Melbourne Water (stakeholder)
4	Floodplain between bluestone drain at end of Turner St and flood water markers (includes grassy reserve between Turner St and exit ramp to river)	Crown land	 Vic Roads (land reserve from end of Turner St to river edge) Abbotsford Riverbankers (<i>de facto</i> site management) Melbourne Water (waterway manager and principal stakeholder) City of Yarra (pathways and verges)
5	Floodplain between floodwater markers and 88 Trenerry Crescent- owned parcel.	Crown land	 Parks Victoria (Burnley Depot) Abbotsford Riverbankers (site authorisation under Parks Victoria management) Melbourne Water (waterway manager and key stakeholder)

Land ownerships and management divisions, area of Abbotsford Riverbanker operations



Private land ASIC (Australian Securities and Investments Commission)

- Melbourne Water waterway manager, drainage reserve caveator
- Abbotsford Riverbankers *de facto* site management
- City of Yarra Pathways and verges



Crown Land

- Melbourne Water waterway manager
- Abbotsford Riverbankers de facto site management
- City of Yarra Pathways and verges



- own Land
- Abbotsford Riverbankers de facto site management
- City of Yarra Pathways and verges
- Melbourne Water waterway manager



Crown Land VicRoads reserve

- Abbotsford Riverbankers de facto site management
- Melbourne Water waterway manager
- · City of Yarra Pathways and verges



Crown Land

- Parks Victoria Manager
- Melbourne Water waterway manager
- · Abbotsford Riverbankers site management, Parks Vic authorisation
- City of Yarra pathways and verges



Private Land managed by 80-84 Trenerry Crescent

(Maps source: Google Maps)

Geological & ecological background

The western bank of the Yarra River in Abbotsford is on the eastern edge of the Western basalt plains. Their volcanic basalt flows of 780,000 to one million years cap older sediments and they are naturally exposed along the Yarra River in Abbotsford and Merri Creek.

Eucalyptus camaldulensis, Eucalyptus melliodora, Eucalyptus leucoxylon, Acacia mearnsii, Allocasuarina verticillata, Bursaria spinosa and Exocarpis cupressiformis formed part of the natural upper story of the area's ecology of grasses and sedges, ferns, herbs, low bushes and trees which provided for hunting, gathering and agricultural activity by the Wurundjeri-willam people prior to European settlement.

Along the Yarra river corridor at Abbotsford, carved by the Yarra between these basalt flows and silurian mudstone/sandstone sediment, nothing or extremely little remains of its original, rich riparian shrubland and riverine escarpment scrubland. Forming part of the wider floodplain grassy woodland of the area, this was essentially razed for grazing and then industry.

Some have regenerated naturally or been partially reinstated in vegetation projects along the corridor. In these areas, unchecked regrowth of nationally significant weeds such as madeira vine, kikuyu grass, African Box Thorn, and blackberries has smothered and destroyed many plants. These weeds undermine the river corridor's ability to heal, and reinforce the idea that this is a low value area the community does not care about.

The level of degradation of this area is so deep that it is not possible to reinstate the original ecosystem. What exists now has either naturally regenerated (especially at the water's edge) or been reconstructed. Abbotsford Riverbankers aims to compensate for this long-term and everpresent danger of ecological damage by contributing to the best possible conservation outcomes. This will be done by expanding the area available to nature conservation. Areas like this ribbon of riverland are critical for environmental repair.

The aim is therefore to establish a locally occurring ecosystem, built around existing natural assets. Rather than imposing a human design on this area, the aim is assisted recovery is our aim, so indigenous species can continue to adapt and evolve. This means moving toward a combination approach of natural regeneration, assisted regeneration and reconstruction.

See Appendix 2 for full illustrated background description.



Weeding management: Extreme infestation of Anredera cordifolia near Johnston St Bridge, March 2018

Our key partners and supporters

We have built and will continue to expand partnerships across our local community, statutory bodies and key conservation organisations. Below are key and emerging partners, with a description of support they provide.

City of Yarra (Land Managers)

In-principle support of Abbotsford Riverbankers' mission, strategic goals and operations; promotion, safe disposal of weeds and rubbish, coordination with other groups, technical advice, paths and verges management.

Parks Victoria (Land Managers)

In-principle support, co-management of working bees, technical support, advocacy with other groups

Melbourne Water (Land Managers)

funding, technical advice

Yarra Riverkeeper (Independent, not-for-profit community of advocates for the Yarra River)

Promotional support, technical advice, resources, partnership opportunities

University of Melbourne Early Childhood Learning Centre (University of Melbourne)

Close neighbour along the Yarra corridor, shared educational and life-long learning approach, onsite dialogue, sharing vegetation resources for planting and stewardship along the river.

Australian Institute of Architects (Victorian Chapter)

Informal alliance through members involved in Indigenous Ecosystems Corridors and Nodes project, with anticipation of workshops in 2021-2)

Collingwood Children's Farm

Our closest neighbour along the Yarra corridor, dialogue on land usage, support for disposing vegetation waste

Members of the local and non-local community

Volunteers, financial support, ecological know-how.



15 | Page

Links to broader strategic plans and policies

Our Strategic Plan is aligned with the Abbotsford River Strategy Plan (Action 20 of the Victorian Government <u>Yarra River Action Plan</u>).

We anticipate coordinating with the Plan and expanding our activities along the western bank of the Yarra in harmony with the Plan.

We also anticipate that our own learning, observations, planning, activities, engagement with community and key partners and longitudinal documentation over time, will provide valuable intelligence for planning and implementing the Abbotsford River Strategy Plan.

Other linkages between this and other strategic plans and policies include (but are not limited to):

Wilip-gin Birrarung murron Yarra River Action Plan 2017¹

In particular, Objectives 1 (A healthy river); 2 (The Great Yarra Parklands); 4 (Securing the Yarra Footprint); 5 (Modern Governance) (Yarra River Action Plan p. 7)

The Yarra Strategic Plan²

(Melbourne Water, under development – see attached Progress Report for the Yarra Strategic Report)

Yarra River 50-Year Community Vision³

(Abbotsford Riverbankers contributed to Melbourne Water 'Imagining the Yarra' community workshops in June 2018)

Yarra River (Wilip-in Birrarung murron) Act October 2018⁴

Abbotsford River Structure Plan and Missing Abbotsford Link

(Actions 20 and 23 of the Yarra River Action Plan - to be developed, as at March 2021)

City of Yarra Integrated Water Management Plan⁵

Abbotsford Riverbankers participated, on invitation by City of Yarra, to development of the Plan. Anna Ridgway made a substantial contribution in 2020 and implemented a 4-week social media campaign to raise awareness and encourage community contributions.

¹ Government of Victoria, *Wilip-gin Birrarung murron Yarra River Action Plan*, Melbourne 2017 available at <<u>https://www.planning.vic.gov.au/___data/assets/pdf_file/0024/27177/DELWP0032_YarraRiverActionPlan_v27_weba.pdf</u>>

² Melbourne Water, *Progress Report for the Yarra Strategic Report*, Melbourne 2019, available at <file:///C:/Users/annar/Downloads/MW0017_Blueprint_YarraStrategicPlan_v16-WEB%20(1).pdf>

³ Melbourne Water, Yarra River 50-Year Community Vision, May 2018, available at

<file:///C:/Users/annar/Downloads/MW0010_A4VisionDocument_v33B_web.pdf>

⁴ Government of Victoria, Yarra River (Wilip-gin Birrarung murron) Protection Act, 2017, available at <<u>http://www.legislation.vic.gov.au/domino/Web_Notes/LDMS/LTObject_Store/Itobjst10.nsf/DDE300B846EED9C7CA257616000</u> <u>A3571/DD5111DE573144AACA258306001928C4/\$FILE/17-49aa002%20authorised.pdf</u>>

⁵ City of Yarra Integrated Water Management Plan <u>file:///C:/Users/annar/Downloads/COY_Intergrated%20Water%20Management%20Plan.pdf</u>

City of Yarra Nature Strategy⁶.

(In development) Abbotsford Riverbankers participated, on invitation by City of Yarra, to development of the Plan. Anna Ridgway participated in workshops and made a substantial contribution in 2019.

Melbourne City Urban Forest⁷

In particular, (to add)

Yarra Riverkeeper Strategic Report⁸

Protecting the Yarra Corridor through Better Planning: Punt Road Bridge to the Urban Growth Boundary, 2018.



⁶ City of Yarra Nature Strategy available at <

file:///C:/Users/Anna%20Ridgway/Downloads/114%20Attachment%201%20Final%20Draft%20Nature%20Strategy% 20%202020%202024%20(1).pdf>

⁷ City of Melbourne, *Melbourne Urban Forest: Making a great city greener 2012-2032*, Melbourne 2012 available at <u>https://www.melbourne.vic.gov.au/SiteCollectionDocuments/urban-forest-strategy.pdf</u>

⁸ Yarra Riverkeeper Association, *Protecting the Yarra Corridor through Better Planning: Punt Road Bridge to the Urban Growth Boundary*, Melbourne 2018, available at <<u>http://yarrariver.org.au/wp-content/uploads/2018/09/Protecting-the-Yarra-River-Through-Better-Planning-Report-by-Ethos-Urban-1.pdf</u>>

Appendix 1

Strategic Plan goals – progress to 2020.

Our 3-year strategic plan was originally set out in 3 stages.

Stage One:

Gather data, experiment with weeding and erosion control, build connections with stakeholders (COMPLETED).

Stage Two:

Upskill committee members, implement weed control strategy for whole area, revegetation in high value areas, building community support and active engagement through working bees (PARTLY IMPLEMENTED).

Stage Three:

Carry out mass planting in remaining areas, implement ongoing management of existing plantings (PARTLY IMPLEMENTED).

Stage Four:

Expand site area, sharing of knowledge and experience with other groups (FUTURE).

Stage One, starting from December 2017 was 14 months of exploratory weeding, planting and land management across a series of embankment rehabilitation 'labs' between Johnston Street Bridge and private land parcels south-west of Dights Falls Reserve.

Elements of **Stages 1 to 4** have been implemented and incorporated into Version 2 of the Strategic Plan.

These are:

Nurturing connections with stakeholders	Strategic Weed management	Nurturing community support
Lifelong learning and upskilling	Ongoing management of priority areas	Revegetating high-value areas

The Strategic Plan stages were based on a number of assumptions and omissions, summarised below:

Assumption/omission	What happened	How we've addressed them
We failed to plan for external risks that could affect our planning,	Covid 19 emerged, forcing us to stop working formally onsite.	We swung into 'individual activity, individual risk' mode, allowing onsite activities to continue and offsite activities to expand.
operations and existence		In the Parks Victoria parcel, we obeyed the 'no activity whatsoever' moratorium. This enabled us to distinguish between our compliance and rogue weed-spraying and pulling activities in the area, enhancing our credibility and reputation.
		This has set the foundation for our management approach and need to do risk planning.
We didn't implement good governance and management from the beginning.	After escalating tensions around poor governance, management and communications, three quarters of the Committee members left the organisation.	This created an opportunity for the one remaining Committee member (Anna Ridgway) to reaffirm strategic partnerships, rebuild the Committee, plan and begin implementing robust governance and management processes, and build the core team and wider network during 2020.
		In the process, the Riverbankers survived and thrived through Covid lockdown and 'bucked the trend' of declining environmental volunteering.
We assumed we would receive funding for key activities and failure to plan alternative activities and funding sources	We received no funding or extremely little funding for key activities, especially upskilling and operational expenses.	This reinforced a pattern of greater fundraising success where we have greater control over the process (e.g. through paid offerings) or internal support from a stakeholder partner to secure funding (e.g. funds set aside from City of Yarra budget) It also reinforces the importance of financial autonomy and securing a revenue stream.
We assumed we could recruit sufficient volunteers to carry out key onsite activities through event-based volunteering.	We experienced difficulties in recruiting and retaining volunteers using the standard event-based approach.	The loss of three-quarters of the Committee and Covid lockdown provided an opportunity to implement a quality, stewardship approach rather than event-based approach to recruiting and retaining volunteers. We realised that when you get the quality right, the quantity will come.
		We also realised that having very clear expectations and sharing a compelling story would build commitment to riverbanking.

We assumed that our land management would progress in a linear fashion	We made unrealistic goals and plans for weeding, revegetation and land management.	We have removed the timeline component for achieving weeding, revegetation and land management timelines. Allowing Nature – and the many complexities of the area – to set the pace has freed us up to work more deliberatively and flexibly, to greater success.
We assumed our Committee (also our core team onsite) would stay intact.	The Committee broke up and we failed to secure volunteers commitment.	See above for how we transformed the organisation's governance and management, and rapidly increased the team & network over 12 months.



Riverbanker social media messaging for Covid 19 compliance (March and August 2020)

Appendix 2

Geological, ecological and cultural background

The western bank of the Yarra River in Abbotsford is on the eastern edge of the Western Basalt Plains, which stretch westwards to Portland covering about 20,000 square kilometres. Their volcanic basalt flows of 780,000 to one million years cap older sediments. These flows are naturally exposed along the Yarra River in Abbotsford and Merri Creek.

The Yarra riparian corridor at Abbotsford was carved by the Yarra between these basalt flows and silurian mudstone/sandstone sediment. At 2019, it is a remnant of what was rich floodplain riparian shrubland, riverine escarpment scrubland and floodplains grassy woodland.



Terrain and Ecological Vegetation Classes, Yarra River Corridor pre 1750 and 2005 (Source: Nature Kit, Victoria Government)

Eucalyptus camaldulensis, Eucalyptus *melliodora* and *Eucalyptus leucoxylon* formed part of the natural upper story of the area's ecology of grasses and sedges, ferns, herbs, low bushes and trees which provided for hunting, gathering and agricultural. None survives as natural remnants from this pre-colonial time.

The earliest known reference to the area's pre-colonisation vegetation is in vegetation mapping and an 1803 survey by James Fleming, who camped with the Wurundjeri-willam below Dights Falls.

Seasonal weather, availability of food and river flow changes determined the best times to visit the area. During winter river floods, the Wurundjeri-willam camped in higher areas. In spring and summer, they moved frequently, hunting and gathering and visiting sacred sites. Spring and early summer yielded yam and other crop harvests, game, wildfowl and bird eggs. Later summer yielded fish and eel harvesting around important campsites.

European settlement brought dispossession and displacement of the Wurundjeri. As elsewhere across Victoria's Plains, its natural vegetation has been almost eliminated, first by agriculture and later by

industrial expansion to the Yarra's edge. Land was subdivided and sold; and bush was cleared to create roads and buildings. Wetlands were drained and the course of the Yarra River was altered.



Construction of Yarra Falls Mills (now an apartment complex), above the Yarra River, 1918

However, the area also represents the vital role the Yarra River has played in Melbourne's settlement and industrial development. In 1838, the area was subdivided and sold by proxy at auction in Sydney. One lot was purchased by John Dight, who harnessed the falls, a natural basalt rock barrier across the river close to Merri Creek, to power his flour mill. Dight subdivided his land into 5 lots, which were bought by property developer Edwin Trenerry, who further subdivided it into a residential estate, setting an early residential precedent for the area.

The riverside location on the working outskirts of Melbourne soon afterwards became an industrial area of tanneries, woollen mills and other industries that used the river for industrial use, transport and as a dump for toxic waste discharge.

Until the construction of sewerage and drainage systems and substantial retaining walls, the natural flooding cycles of the river continued to affect residents and businesses in the area.



Austral Silk and Cotton Mills 1943, on the edge of the Yarra River escarpment which forms part of the area of our operations.

The area has since largely de-industrialised. Its riverside factories and mills have been converted to highly sought-after residential and business zones. However, its post-colonial and industrial legacy live on in a confusing complexity of land ownerships and management overlays. The network of ageing drainage systems discharges pollutants and waste directly into the river and contributes to bank slump and collapse.

Uneven revegetation efforts on the slope with inconsistent management have so-far failed to deliver on the significance and promise of this ecologically and historically important river corridor.

Today, this area forms part of one of the two most vegetation-cleared and alienated areas of Victoria's Port Phillip district. Nonetheless, its special geological and ecological qualities and its cultural significance for the Wurundjeri-willam people and our industrial legacy provide a remarkable opportunity to rehabilitate this precious strip of riparian corridor, and connect it to other biodiversity initiatives locally and along the Yarra River and Merri Creek corridors.



Weeding management: April 2019 Anredera cordifolia removal and ongoing monitoring towards eventual eradication near Johnston Street Bridge

Appendix 2

Plants list riverine escarpment scrub9

CANOPY AND CLIMBERS		PRIORITY	Comments	EROSION PREVENTION
Acacia implexa	Lightwood	Low-medium		✓
Acacia mearnsii	Black Wattle	Medium	Naturally regenerating around Johnston St Bridge. Nitrogen fixing and soil binding	1
Acacia melanoxylon	Blackwood	Medium-high	Naturally regenerating around Johnston St Bridge	1
Acacia paradoxa	Hedge Wattle	Medium		✓
Acacia pycnantha	Golden Wattle	Low-medium		
Allocasuarina verticillata	Drooping Sheoke	Medium	Nitrogen fixing, soil binding	
Bursaria spinosa	Sweet Bursaria	High	Attracts butterflies & nectar-eating birds, shelters fauna	
Cassinia longifolia		Medium	Pioneer plant in disturbed soils, rocky terrain	
Clematis microphylla	Small-leaved Clematis	Medium	Low density planting	
Correa glabra	Rock correa	Medium-high	Bird attracting, part shade to full sun	✓
Eucalyptus camaldulensis	River Red Gum	Low	Naturally regenerating along river, some mature trees. Currently a low priority for revegetation areas.	
Hymenanthera dentata	Tree Violet	Medium	Useful for establishing erosion control, esp. in rocky sites	1
LOW SHRUBS				
Indigofera australis	Austral indigo	High	Useful in difficult shady areas (e.g., near peppercorn/plane trees)	1
Atriplex semibaccata	Berry Saltbush	High	Best in full sunlight; erosion prevention, bare areas.	1
Chrysocephalum semipapposum	Clustered Everlasting	Low		
Callistemon sieberi	River Bottlebrush	High	Establishes itself well in tough conditions	1
Myoporum viscosum	Sticky Boobialla	Medium to high	Excellent for soil binding; dry soil, sun.	1
Podolepsis jacoides	Showy copper daisy	Medium		

⁹ Main source: Parks Victoria, *Vegetation of Yarra Bend Park*, Melbourne 2002, available at <<u>https://parkweb.vic.gov.au/ data/assets/pdf file/0004/313465/Yarra-Bend-Park-Vegetation-of-Yarra-Bend-Park.pdf</u>>

*Note: For practical purposes (e.g., because some are unavailable/difficult to purchase or require growing conditions that are not feasible in this area, such as Excocapos Cupressiformis) some plants indigenous to this riparian escarpment shrubland have been excluded from this list. In the future, some may be added to the list.

Rubus parvifolius	Small-leaf Bramble	Medium	Shade to semi shade under established trees.			
Solanum aviculare	Kangaroo Apple	Medium		1		
FERNS						
Cheilanthes sieberi	Narrow Rock- fern	Medium	Rocky areas, drier sites			
Doodia Australis	Common Rasp-fern	Medium	Prefers well drained soils, shade-semi shade	✓		
Pellaea falcata	Sickle Fern	Low	Prefers moist, rich soils in riparian forest, shade to dappled shade			
SEDGES, LILIES, RUSHES &	GRASSES					
Austrodanthonia	Wallaby Grass	High	Useful to plant under trees and mix with other grasses. May form a 'mat' to prevent soil erosion.	✓		
Austrostipa	Spear Grass	High	Excellent for mass planting, weed control and soil erosion.	✓		
Austrostipa elegantissima	Elegant feathergrass	Medium to high	Excellent for drier, more sun-exposed upper slopes.			
Bothriochloa macra	Red-leg Grass	Low				
Chloris truncata	Windmill Grass	Medium	Useful to colonise and stabilise eroded areas.	✓		
Dichelachne crinite	Long-hair Plume-grass	Medium	Good for mass planting, out-competing weeds and soil erosion.	✓		
Enneapogon nigricans	Black heads	Medium to high	Useful for grass weed infested (e.g., couch, kikuyu grass) areas	✓		
Lepidosperma laterale	Variable Sword-sedge	Medium	Semi to dappled shade in riparian forest area. Very adaptable; care needed on placement owing to sharp edges.	✓		
Lomandra longifolia	Spiny-headed Mat-rush	High	Priority along pathways and higher erosion-prone bank sections	\checkmark		
Microlaena stipoides	Weeping Grass	High	Esp. effective establishing understory Replacement grass for higher-footfall bank areas currently infested with Pennisetum clandestinum	✓		
Poa rodwayi	Velvet Tussock-grass	Low-medium				
Poa sieberiana	Grey Tussock- grass	Medium	Good alternative to Poa labillardieri along waterway.			
Themeda triandra	Kangaroo Grass	Medium-high		✓		
Tricoryne elatior	Yellow Rush- lily	High	Erosion control in small areas	\checkmark		
HERBS						
Einadia nutans	Nodding saltbush	High	Useful for colonising bare areas & eroding soils.	✓		

Plants list riparian woodland/shrubland

CANOPY AND CLIMBERS		Priority	COMMENTS	EROSION PREVENTION			
Pomaderris aspera	Hazel pomaderris						
Ozothamnus ferrugineus	Tree everlasting						
Gynatrix pulchella	Hemp bush						
Hymenanthera dentata	Tree violet						
Dichelachne crinita	Longhair plume grass			✓			
Microlaena stipoides	Weeping grass						
Poa ensiformis	Sword Tussock grass						
SEDGES, LILIES, RUSHES & GRASSES							
Austrostipa scabra	Slender Spear grass						
Lomandra longifolia	Spiny-headed Mat- rush						
Juncus holoschoenus	Joint-leaf rush						
Carex apressa	Tall sedge						
Rytidosperma racemosum	Wallaby grass						
Ficinia nodosa	Knobby club-rush						
Juncus subsecundus	Fingered rush						
Bursaria spinosa	Sweet bursaria						
Melaleuca ericifolia	Swamp paperbark						
Rubus parvifolius	Small-leaf bramble						
LOW SHRUBS							
Pomaderris aspera	Hazel pomaderris						
Goodenia ovata	Hop goodenia						
Rhagodia candolleana	Seaberry saltbush						
Rhagodia parabolica	Fragrant saltbush						
HERBS							
Glycine tabacina	Variable glycine						
Enchylaena tomentosa	Ruby saltbush						

Plants list Drooping Sheoke grove (riverine escarpment scrub)

*Note: the suckering regrowth of Allocasuarina verticillata on the riverine part of the bank near Johnston Street Bridge presents two variations: 1) closely clustered monospecific growth, and 2) more widely spaced growth. These require differing approaches to planting. The latter will enable greater variety.

TALL SHRUBS		Priority	Comments	EROSION CONTROL
Bursaria spinosa	Sweet Bursaria	High	Attracts butterflies & nectar-eating birds, shelters fauna	
Hymenanthera dentata	Tree violet	Medium	Tree violet	
GRASSES & LILIES		Priority	Comments	EROSION CONTROL
Arthropodium strictum	Chocolate lily	Medium		
Chloris truncata	Windmill Grass	Medium	Useful to colonise and stabilise eroded areas.	✓
Lomandra longifolia	Spiny-headed Mat-rush	High	Typical to casuarina woodlands	\checkmark
Microlaena stipoides	Weeping Grass	High	Esp. effective establishing understory	1
Themeda triandra	Kangaroo Grass	Medium- high		√
Tricoryne elatior	Yellow Rush-lily	High	Erosion control in small areas	1
LOW SHRUBS & CLIMBERS		PRIORITY	Comments	EROSION CONTROL
Atriplex semibaccata	Berry Saltbush	High	Best in full sunlight; erosion prevention, bare areas.	✓
Calocephalus lacteus	Milky beauty heads	Medium		
Microseris lanceolata	Yam daisy	Medium	Feature of Allocasuarina woodlands	
Podolepsis jacoides	Showy copper daisy	Medium		
Rhagodia parabolica	Fragrant saltbush			
Rubus parvifolius	Small-leaf bramble			



Natural regeneration of soil-binding, nitrogen-giving acacia mearnsii (black wattle) on highly-degraded slope beside Johnston St Bridge, following weeding and swaling. (Photographs: @ 2019 Anna Ridgway, Abbotsford Riverbankers)

To find out more, contact:

Anna Ridgway (President)

Abbotsford Riverbankers Inc.

T:0435 038 152

E: anna@abbotsfordriverbankers.org.au

W: https://www.abbotsfordriverbankers.org.au

A: 72 Abbotsford Street, Abbotsford, VIC 3067

- Gabbotsfordriverbankers
- Abbotsford Riverbankers

ABN: 32 958 924 663