

TOWN OF BASSENDEAN
MINUTES
BASSENDEAN RIVER PARKS COMMITTEE

HELD IN THE COUNCIL CHAMBER, 48 OLD PERTH ROAD, BASSENDEAN
ON TUESDAY 5 MARCH 2019, AT 3.10PM

1.0 **DECLARATION OF OPENING/ANNOUNCEMENT OF VISITORS**

The Presiding Member opened the meeting, welcomed all those in attendance and conducted an Acknowledgement of Country.

2.0 **ATTENDANCES, APOLOGIES AND APPLICATIONS FOR LEAVE OF ABSENCE**

Present

Committee Members

Cr Melissa Mykytiuk, Presiding Member
Cr Kathryn Hamilton
Cr Bob Brown
Nonie Jekabsons, Community Representative
Paul Bridges, Community Representative
Naomi Bannister, Community Representative
Jane Bremmer, Community Representative

Members of the Committee (Advisory role only)

Augustine Okom, Dept. of Biodiversity, Conservation & Attractions – Rivers & Estuaries Branch

Visitors

Gavan McGrath, Dept. of Biodiversity, Conservation & Attractions – Ecosystems Science

Officers

Peta Mabbs, Chief Executive Officer
Simon Stewert-Dawkins, Director Operational Services
Ken Cardy, Manager Asset Services
Jeremy Walker, Senior Environmental Officer
Amy Holmes, Minute Secretary

Apologies

John Wood, Community Representative
Peter Kane, Dept. of Planning – Lands & Heritage
Brian Reed, Manager Development Services

Absent

Glen Byleveld, Dept. of Biodiversity, Conservation & Attractions
Andrew Hawkins, Dept. of Planning – Lands & Heritage
Tim Sparks, Dept. of Water
Stephen Summerton, Dept Fire Emergency Services

3.0 DEPUTATIONS

The Department of Biodiversity, Conservation and Attractions - Research Scientist Dr Gavan McGrath, provided a powerpoint presentation outlining the Ashfield Flats hydrological study that is currently being undertaken in relation to Item 8.3 – **see attached.**

4.0 CONFIRMATION OF MINUTES

4.1 River Parks Committee Minutes of 13 November 2018

COMMITTEE/OFFICER RECOMMENDATION – ITEM 4.1

MOVED Cr Hamilton, Seconded Paul Bridges, that the minutes of the River Parks Committee meeting held on 13 November 2018 be confirmed as a true record.

CARRIED UNANIMOUSLY

5.0 ANNOUNCEMENTS BY THE PRESIDING PERSON WITHOUT DISCUSSION

Nil

6.0 DECLARATIONS OF INTEREST

Cr Mykytiuk declared that she is an employee of the Department of Biodiversity, Conservation and Attractions.

7.0 BUSINESS DEFERRED FROM PREVIOUS MEETING

Nil

8.0 REPORTS

8.1 River Parks Committee - Instrument of Appointment and Delegation

At its meeting held on 18 December 2018, Council resolved to amend the River Parks Committee's Instrument of Appointment and Delegation, so that members from external organisations of the Committee are attending in an advisory role only.

The current representatives from the following external organisations have been consulted, and the general consensus is that these members preferred not to have voting rights on this Committee, as they felt that there could be a conflict of interest when matters concerning their areas, are voted on.

- One representative from the Department of Planning Lands and Heritage;
- One representative from the Department of Biodiversity, Conservation & Attractions;
- One representative from the Department of Water and Environmental Regulation; and
- One representative from the Department of Fire & Emergency Services.

COMMITTEE/OFFICER RECOMMENDATION – ITEM 8.1

RPC – 1/03/19 MOVED Cr Hamilton, Seconded Paul Bridges, that the Committee notes the changes made to the Instrument of Appointment and Delegation.

CARRIED UNANIMOUSLY

8.2 Success Hill Spillway Investigation (Ref:PARE/PLANNG/1 - Jeremy Walker, Senior Environmental Officer)

APPLICATION

The purpose of the report is to present to the Committee a report on the Success Hill Reserve spillway which has been damaged due to stormwater, and the outcomes of the investigation carried out.

OFFICER RECOMMENDATION – ITEM 8.2

That the River Parks Committee recommends that Council:

1. Receives the project update on the Success Hill Reserve collapsed spillway; and

2. Notes that GHD consultants will present the Success Hill Reserve concept design options to the River Parks Committee meeting on 4 June 2019, for discussion.

LAPSED FOR WANT OF A MOVER

Cr Hamilton moved an alternative motion.

Additional points were added to the Officer's Recommendation to provide specific direction for Council's consideration of desirable actions to be undertaken in relation to and in conjunction with the Success Hill Spillway Project.

COMMITTEE RECOMMENDATION – ITEM 8.2

RPC – 2/03/19

MOVED Cr Hamilton, Seconded Paul Bridges, that the River Parks Committee recommends to Council that:

1. Council receives the project update on the Success Hill Reserve collapsed spillway;
2. Council **Requests as a matter of urgency** that GHD consultants **provides** the Success Hill Reserve concept design options to the River Parks Committee **members and Council as soon as practicable before the next** Committee meeting on 4 June 2019;
3. **Council communicates with the Department of Transport to facilitate the installation of a river speed camera in the vicinity of the Success Hill spillway to assist in efforts to reduce riverbank erosion associated with the wakes produced by speeding boats;**
4. **Town staff explore and apply for grants that will assist in riverbank restoration of the degraded areas at and around the Success Hill Spillway, at the discretion of the Town administration**
5. **In respect to work on the project, that consultation be commenced with the traditional owners of the land;**
6. **GHD be requested to consider design options that create swale type water sensitive urban design basins that enable the street drained water to access the groundwater and allow the overspill to exit via the existing 450mm outlet pipe to the spillway.**

CARRIED 4/3

Cr Hamilton, Cr Brown, Paul Bridges and Nonie Jekabsons voted in favour of the motion. Cr Mykytiuk, Naomi Bannister and Jane Bremmer voted against the motion.

8.3 Department of Planning, Lands & Heritage - Draft 2018-2023 Ashfield Flats Reserve Works Program (PARE/DESCONT/6) Simon Stewert-Dawkins Director Operational Services

APPLICATION

The purpose of the report is to provide an update on the Department of Planning, Lands & Heritage's draft Ashfield Flats Concept Plan, the public consultation undertaken and the Department's report on the community feedback received.

*On 5 March 2019, the Bassendean Preservation Group – Propagation Manager, Mr Steve McFarland, submitted an email and letter for the River Parks Committee's consideration. The information was provided at the meeting – **see attached.***

OFFICER RECOMMENDATION – ITEM 8.3

That the River Parks Committee recommends to Council that it notes the Department of Planning, Lands and Heritage's implementation works that have commenced at the Ashfield Flats Reserve.

LAPSED FOR WANT OF A MOVER

Cr Brown moved an alternative motion and provided the following information:

“Many people in our community have expressed their dismay and frustration at the recently installed barrier fence on Ashfield Flats.

Without exception these people advocate to protect and highlight the Ashfield Flats special environmental values and the Ashfield Flats' special community values.

The last public consultation meeting (hosted by the Town and addressed by two WAPC Officers), in relation to the Works Plan for Ashfield Flats led to an explicit understanding by the vast majority of attendees, including a State Government Minister and Town Councillors, that:

- The Threatened Ecological Community of the samphire heath would be fenced in the short term.*

- *That no other (temporary) fencing or path realignment would take place until the conclusion of the hydrological study which was expected to take between 18 months to 2 years.*

Also explicit was the understanding there would be more consultation and communication to the public about this.

By any reasonable definition the fence that has been installed could not be considered temporary.

There are numerous current threats to the river bank and the Flats as a whole including; predominantly boat wash, foxes, pedestrian and dog traffic, trail bikes, feral cats, weeds and pollution. However, unlike the apparent belief of the proponents of this fence, people and healthy riverbanks are not mutually exclusive if these spaces are managed and designed well. If designed well then the connection and sense of stewardship felt by community becomes an asset to protect the environmental values of the Ashfield Flats.

Importantly, this allows the special community values of the Ashfield Flats to be maintained and at a time when the need for connected communities and spaces that allow those connections and relationships to grow and flourish, is more and more recognised this value can not be ignored.

By building this fence, the goodwill fostered within the community is being damaged and the connection and respect that people have for this place and more worryingly for the effort to protect and preserve it, is being eroded. There is deep disappointment at this outcome and people feel let down by those managing this process and those ultimately responsible for it.

In conclusion, when things are said or written and guarantees given, those saying or writing these things enter into a contract. Clearly, in this case, our community can feel aggrieved.

COMMITTEE RECOMMENDATION – ITEM 8.3

RPC – 3/03/19

MOVED Cr Brown, Seconded Cr Hamilton, that the River Parks Committee recommends that Council:

1. Notes the Department of Planning, Lands and Heritage's implementation works that have commenced at the Ashfield Flats Reserve;

2. Expresses concern that the information provided at the public meeting stating the fencing realignment will not take place until the conclusion of the hydrological study (18 months-two years) has not been met.
3. Requests that the Department of Planning, Lands and Heritage, as a priority, action points 3a and 3b of OCM-21/11/18 that states:
 - 3a) *the Department of Planning, Lands and Heritage to approach the Department of Transport and request a fixed Swan River speed camera be erected at Ashfield Flats to assist with the control of boat speed, with the aim to reduce the impact of boat wash as a contribution to reducing riverbank erosion at Ashfield Flats; and a sign be erected with a contact number to report speeding boats; and*
 - 3b) *the Department of Planning, Lands and Heritage to seek the advice of the Department of Transport to direct all Swan River traffic and modify existing nautical maps to use the channel navigation markers between Ron Courtney Island and Garvey Park.*
4. Requests the Town's administration independently make their own representations to the Department of Transport in respect to the matters outlined in Point 3 above, expanding the request to a total of three fixed Swan River speed cameras and associated signage, potentially installed in suitable locations at Sandy Beach, Ashfield and Success Hill;
5. Requests the Department of Planning, Lands and Heritage investigate the implementation of boardwalk style pathway with portions of the project to facilitate the community's continued connection with the river and wetlands;
6. Requests, as a matter of urgency, that the Department of Planning, Lands and Heritage liaises with the Town's administration and the Local State Member of Parliament to facilitate and widely promote an information public meeting for the community;
7. Requests the Department of Planning, Lands and Heritage fast-track the installation of signage in and around the project areas to inform the public of project work and aims; and

8. In consideration of the Department of Planning, Lands and Heritage's request for the Town to coordinate management of its area adjacent to the Ashfield Flats, that the Town advances representations to the Minister and Department of Water to achieve funding for the design of a living stream from the Chapman Road drain outlet to the Villiers Street road reserve.

CARRIED UNANIMOUSLY 7/0

9.0 MOTIONS OF WHICH PREVIOUS NOTICE HAS BEEN GIVEN

9.1 Turf Management Practices - Nonie Jekabsons

See attached tabled information.

COMMITTEE RECOMMENDATION – ITEM 9.1

- RPC – 4/03/19** MOVED Nonie Jekabsons, Seconded Naomi Bannister, that the River Parks Committee requests Town of Bassendean staff improve the processes and procedures around turf management of the Town's parks, reserves and street verges with a view to minimising the pollution of our waterways and the Swan River and to improve ecosystem functions within our catchment.

CARRIED UNANIMOUSLY 7/0

9.2 PFOS and PFAS Groundwater Sampling – Nonie Jekabsons

COMMITTEE RECOMMENDATION –ITEM 9.2

- RPC – 5/03/19** MOVED Nonie Jekabsons, Seconded Paul Bridges, that the River Parks Committee requests the Town of Bassendean to include testing for Perfluorooctane sulfonate (PFOS) and Polyfluoroalkyl Substances (PFAS) in the groundwater sampling programme to ascertain whether these chemicals are present.

CARRIED UNANIMOUSLY 7/0

9.3 Decline of Success Hill Reserve and River Embankment – Jane Bremmer

Jane Bremmer gave a verbal presentation at the meeting and provided the information in hard copy – see attached, on the WALGA Weeds Forum held in February 2019 and hosted by the City of South Perth.

COMMITTEE RECOMMENDATION – ITEM 9.3

RPC – 6/03/19 MOVED Jane Bremmer, Seconded Paul Bridges, that the River Parks Committee lists as an agenda item for discussion at the next meeting, the increasing decline of the Success Hill Reserve, including the river embankment, reserve and spillway and the ongoing and future management options planned.

CARRIED UNANIMOUSLY 7/0

10.0 ANNOUNCEMENTS OF NOTICES OF MOTION FOR THE NEXT MEETING

10.1 Paul Bridges – Bindaring Park

Paul Bridges advised that he wishes to move the following at the next meeting:

That the River Parks Committee recommends to Council that to advance the concept designs proposed in the Co Terra report:

1. A funding allocation be made in the 2019/20 budget sufficient for consultants to prepare a detailed design for Bindaring Park North to occur in 2019 and allowing some prioritised implementation to commence in 2020; and
2. Staff be directed to explore grant funding options for design and implementation in conjunction with Friends of Bindaring Wetland Bassendean.

Background – Paul Bridges

On 25 Aug 2018 Friends of Bindaring Park & the Bassendean Preservation Group conducted the Bindaring Wetland Forum. Expert speakers were Brett Kuhlmann, Rose Weerasinghe, Jeremy Meagher and Jeremy Walker.

Direct outcomes have been:

Hand-weeding in the mid-section Jeremy Walker identified an area for hand weeding, a Bush Management Plan 31 Sep 2018 was submitted to ToB and four community weeding sessions were held between Anstey Road and Hyland Street on 14 Oct, 28 Oct, 25 Nov. These tackled winter weeds on the higher ground, while the lower areas were too wet to access. Returning in January, when the waterway was almost dry, four more dates have been set to take us through to Easter - 24 Feb, 10 Mar, 24 Mar & 7 Apr.

December 2018 FOBWB Activity Plan for 2019 submitted. Section 5 dealt with the northern section of Bindaring Wetland

On the ground in the Top/Northern section: Harcourt St – Anstey Rd.

Find out what is the plan for anti-erosion matting (coconut fibre held with a plastic net). Would be good to have a plan as we'll be dealing with the fall-out for years ahead.

Foster a plan for the north that can be implemented in bite-size chunks. Invite Brett Kuhlman and Rose Weerasinghe to meet with us in February. Consider funding opportunities.

Possible projects

Mid- section would be a design and construct project,

North section would be a design project.

Work up plans that can be taken to the River Parks Committee.

Accordingly, FOBWB met with Brett Kuhlmann and Rose Weerasinghe on 17 February to talk about ways forward. Brett offered to review the CoTerra report (rev 1 July 2017, as supplied as an attachment to the River Parks Committee) as a starting point and his encouraging response is **attached**.

To take the groundwork started by CoTerra to the next level in Bindaring north needs some detailed design to identify areas for recontouring and areas which might need little more than a staged revegetation plan.

If this is not done, another season will pass and community concerns about apparently aimless herbicide treatments will escalate.

11.0 CONFIDENTIAL BUSINESS

Nil

12.0 CLOSURE

The next meeting will be held on 4 June 2019 at 3pm.

There being no further business, the Presiding Member closed the meeting at 5.50pm.

**RIVER PARKS COMMITTEE
MINUTES
ATTACHMENTS**



Department of **Biodiversity,
Conservation and Attractions**



**Biodiversity and
Conservation Science**

Ashfield Flats Hydrological Study

Update and outline of proposed
activities

Dr Gavan McGrath



Acknowledgements

- **Multiple Landowners**
 - Western Australian Planning Commission (managed by Dept. Planning Lands Heritage)
 - Town of Bassendean
 - Water Corporation
- **Other Stakeholders**
 - DBCA
 - This Committee and other Bassendean Groups
 - Perth NRM
 - South West Aboriginal Land and Sea Council





Outline

- Introductions
- Aims and Objectives
- Review
 - Key Issues
 - Existing Literature
 - Most Recent Data
- Proposed Future Activities



Introductions: About Me

- Environmental Engineer
 - Fluid mechanics/hydrology
 - Contaminant fate and transport in the environment
- Consulting
 - Contaminated sites consultant/assist to Auditor
 - Environmental Impact Assessment
- PhD from UWA
 - Pesticide fate and transport in the environment
- Post-doc and Lecturer at UWA
 - Eco-hydrology, soil-physics, hydrology
- Teagasc (Ireland)
 - River water quality assessment, pesticides and nutrients
- DBCA
 - Research Hydrologist (January 2019)
 - @DbcaHydrology 

Ecological Values



- Bush Forever Site (No. 214)
- Listed in the Directory of Important Wetlands in Australia
- Threatened Ecological Community
 - Largest remaining river flat in the Perth Metropolitan Area;
 - Samphire flats, in the east, Melaleuca wetlands, in the west.



Issues



- Parts of ecosystem significantly degraded/some pristine
- Stormwater drains
 - High metals
 - High nutrients
 - Low pH
 - Altered natural hydrology
 - Upstream contaminated sites
- Eco-hydrology not well characterised



Aims and Objectives of This Hydrological Study

- To better understand
 - surface-water and groundwater processes occurring at the Reserve
 - the contamination issues impacting and potentially impacting the Reserve
- Develop a monitoring program to quantify the hydrological and geochemical processes
 - Water fluxes
 - Salt balance
 - Metals balance
 - Acid sulphate soils
- Use data to create conceptual and numerical water balance/solute balance models

Summary of Progress to Date

- January 2019
 - Hydrologist commenced
- Jan – Feb
 - Reviewed available data
 - Sampling and Analysis Plan
 - Environmental Management Plan
 - Sought permits (vegetation, landowners, OH&S)
 - Tested geophysics methodology
- Established collaborations
 - University of Florida
 - UWA
- Commenced procurement process
 - Drillers
 - Laboratories
 - Monitoring equipment
- Training
 - Inductions (DBCA, Water Corporation)



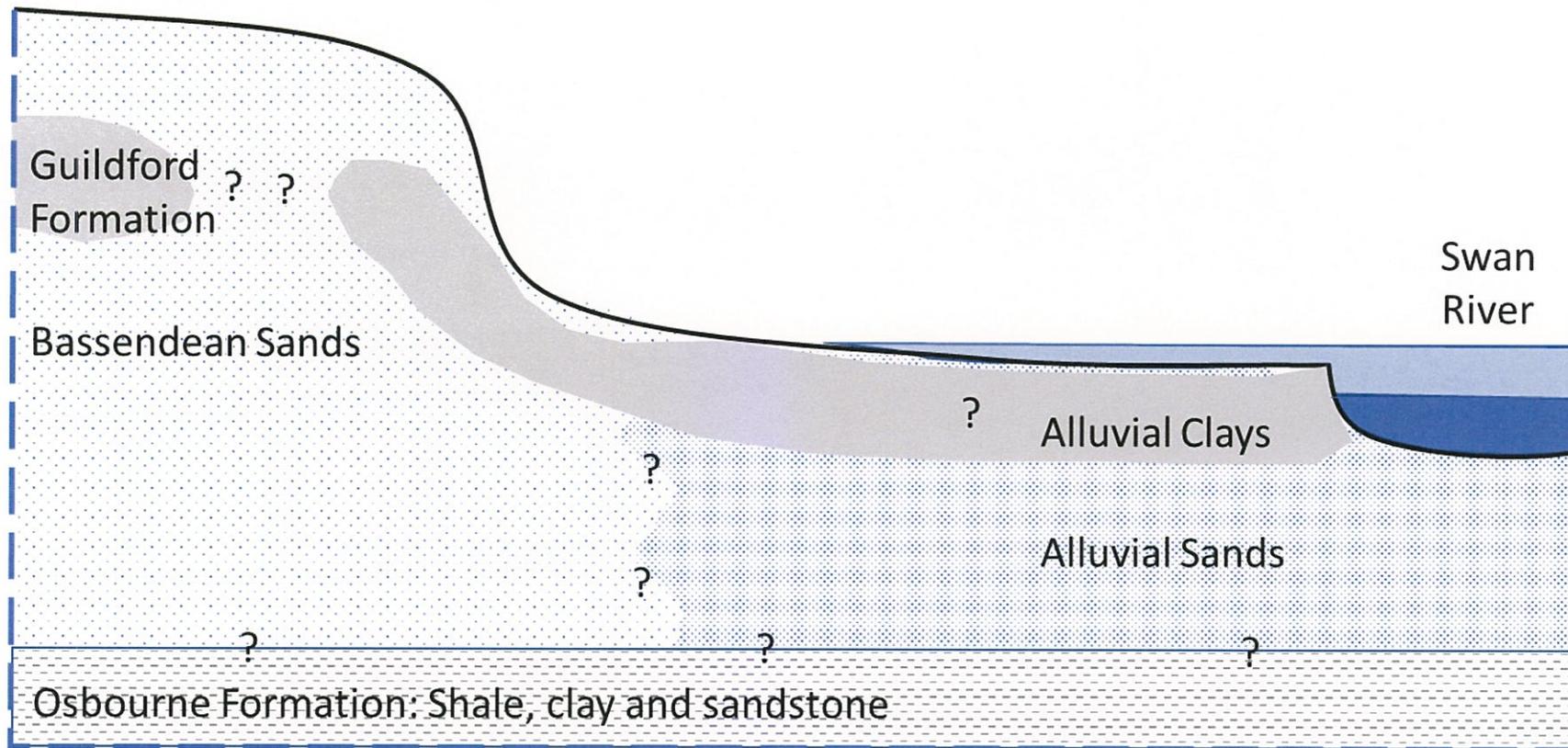


Review of Available Data

- Historical reports
 - Acid sulphate soils
 - Ashfield Flats vegetation, water quality
- Assessed contaminated site issues
- Collated geological and geochemical data
- Recent DBCA monitoring/assessment
- Developed initial conceptual models



Conceptual Lithology



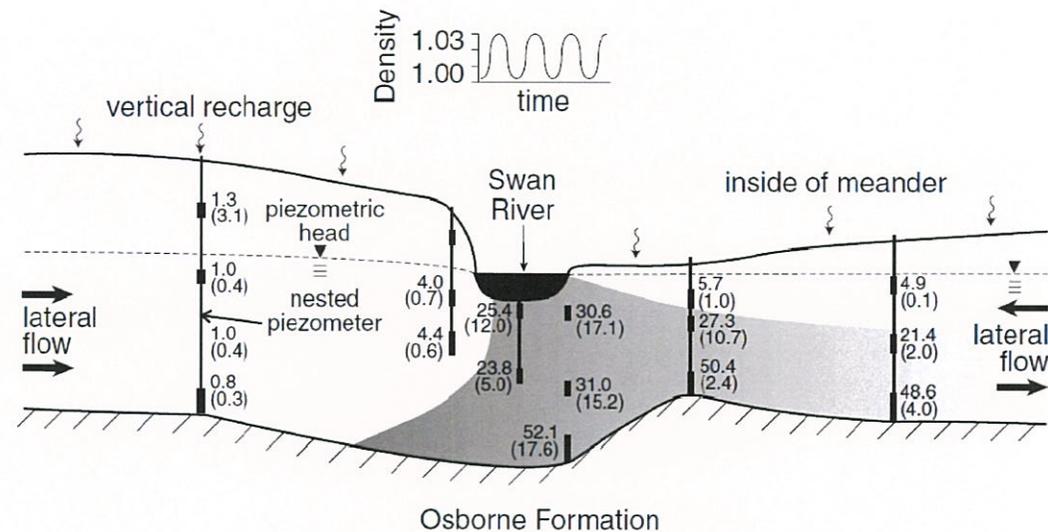
Saline groundwater interaction with the Swan River

Concentration of salts in the Swan River due to evaporation and tides

Saline / fresh groundwater interface

Asymmetric pattern of saline intrusion depending on river meander

Both (left and right) patterns may be occurring in different parts of Ashfield Flats



vertical exaggeration = 14x
200 metres

KEY:
1.3 Electrical conductivity (mS/cm)
(0.4) Ammonium conc. (mg/l)

Smith and Turner (2001)



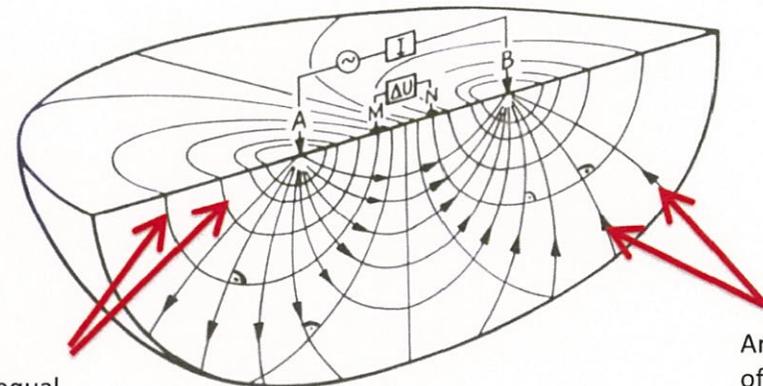
Geophysics Trial

DBCA January 2019

Electrical Resistivity Tomography



A, B are the current electrodes
M, N are the potential (Voltage) electrodes



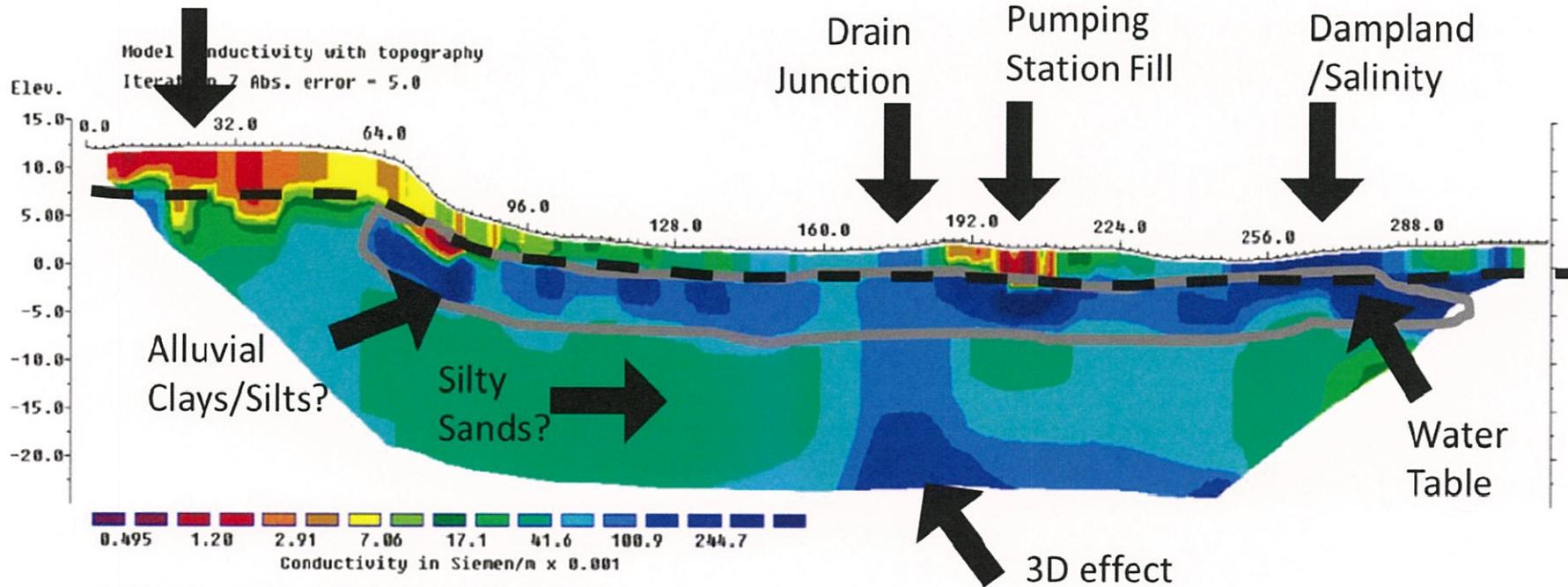
Lines of equal
voltage

Arrows – direction
of current flow



Geophysics Trial

Housing Fill



Horizontal scale is 7.00 pixels per unit spacing
Vertical exaggeration in model section display = 2.00
First electrode is located at 0.0 m.
Last electrode is located at 316.0 m. Unit Electrode Spacing = 2.00 m.



Remote Sensing Study by DBCA Geospatial Analyst

Landsat data (1980 – 2018)

30 m pixels

Thermal band threshold

Mapped time series and frequency of
inundation

Able to pick up open clay-pans

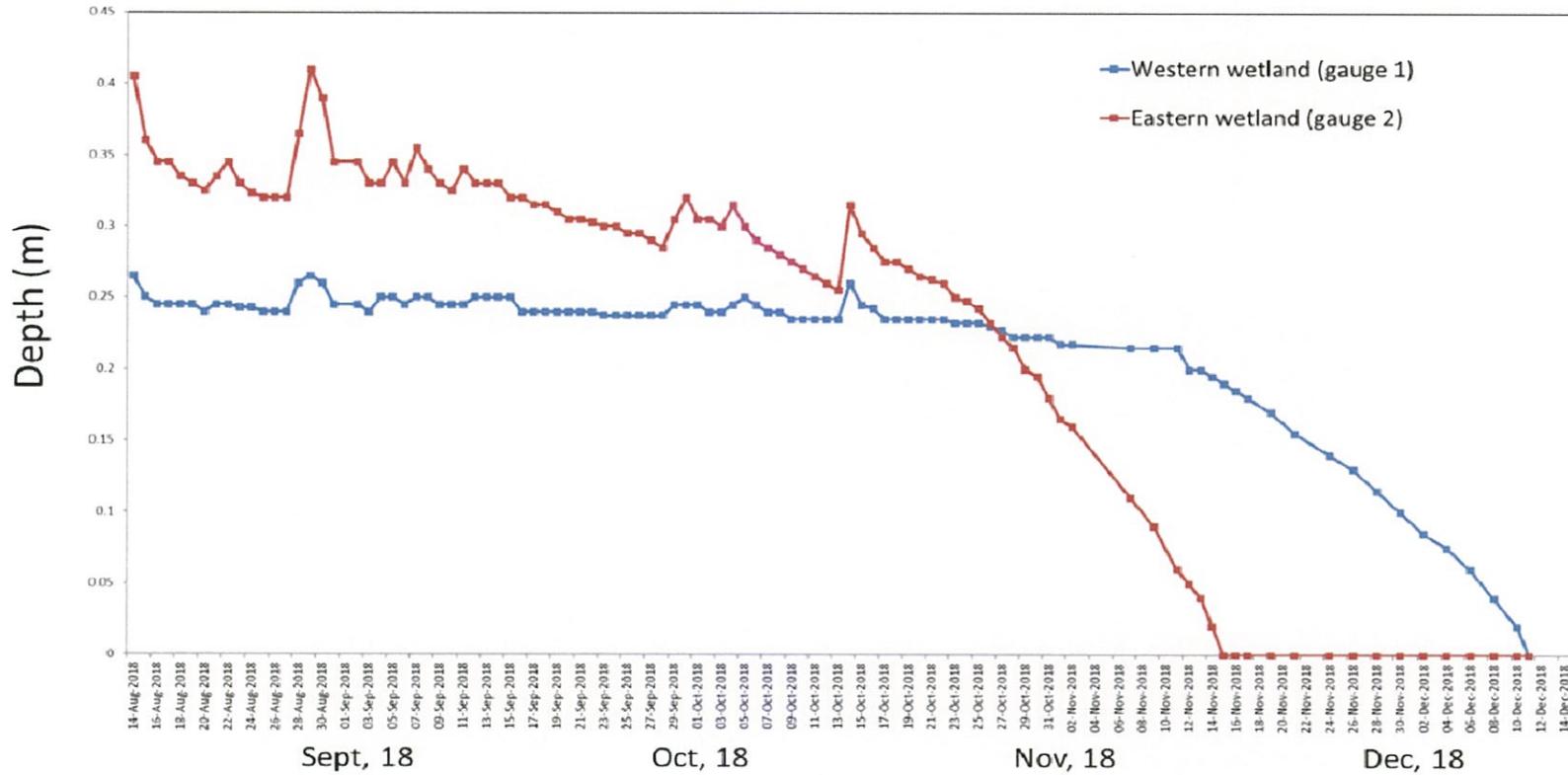
Not so good at detecting more
permanent wetlands in the west due
to vegetation cover



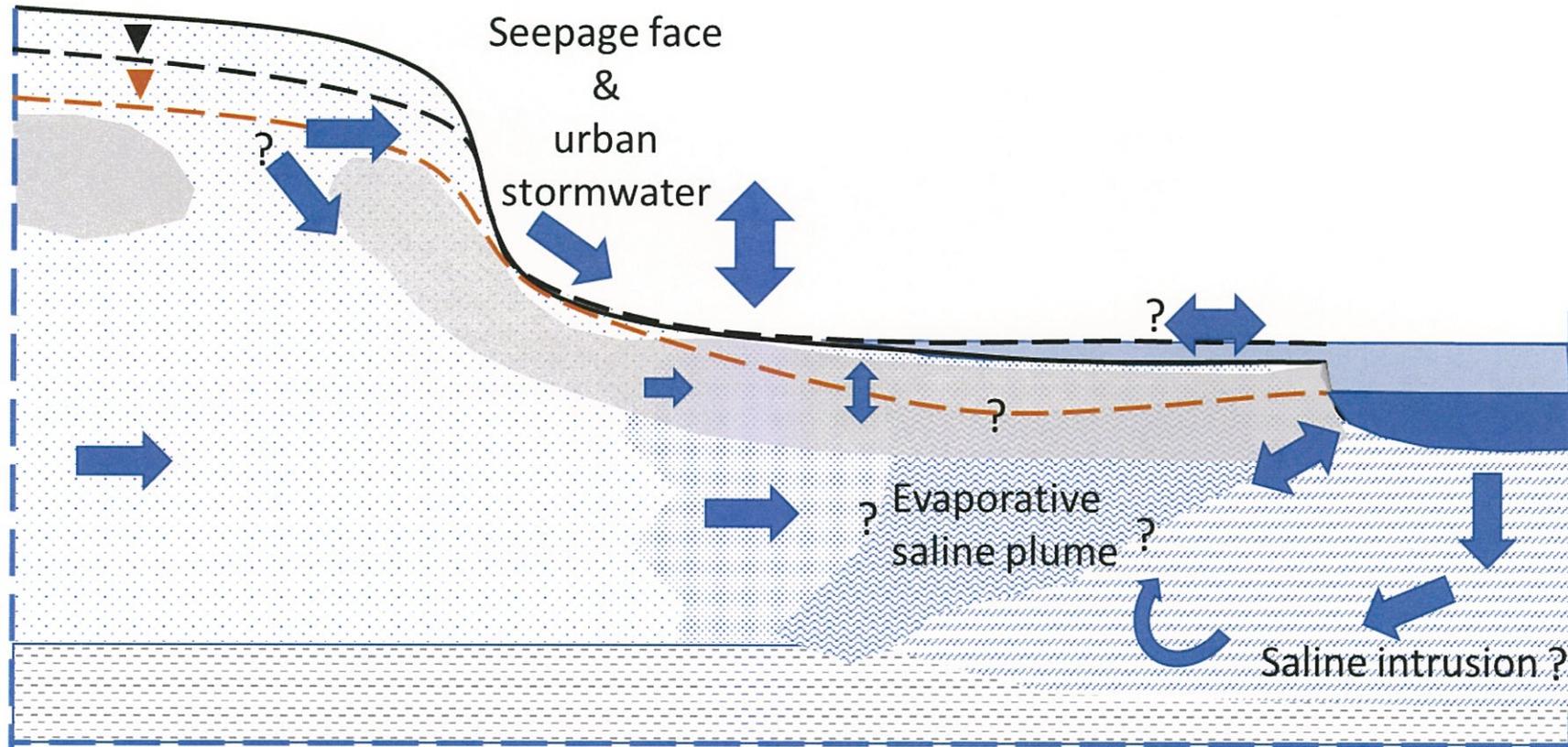
The Department of Biodiversity, Conservation and Attractions does not guarantee that this map is without error and disclaims all liability for any errors, loss or other consequences which may arise from relying on any information depicted. Roads and tracks on land managed by DBCA may change unannounced because their surface condition is variable. Contact us for more information on all maps.

Initial wetland level monitoring

Daily visits by Adrian Pinder



Conceptual Groundwater Hydrology

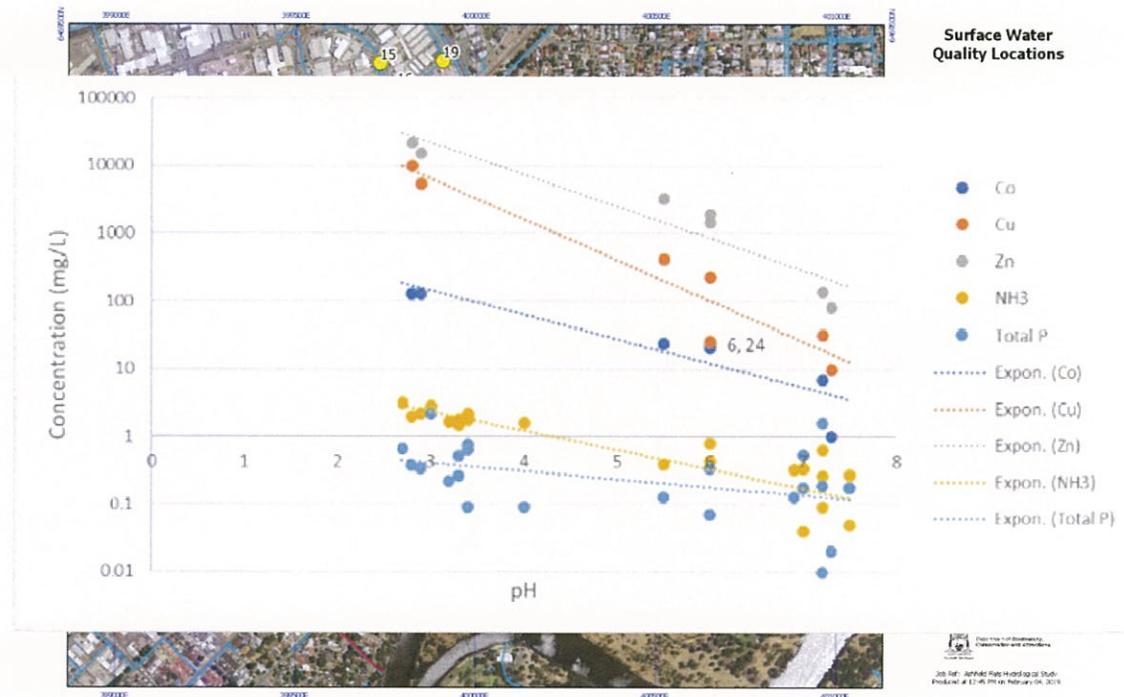


Historical Drain (Chapman Street and Kitchener Street) Water Quality Monitoring

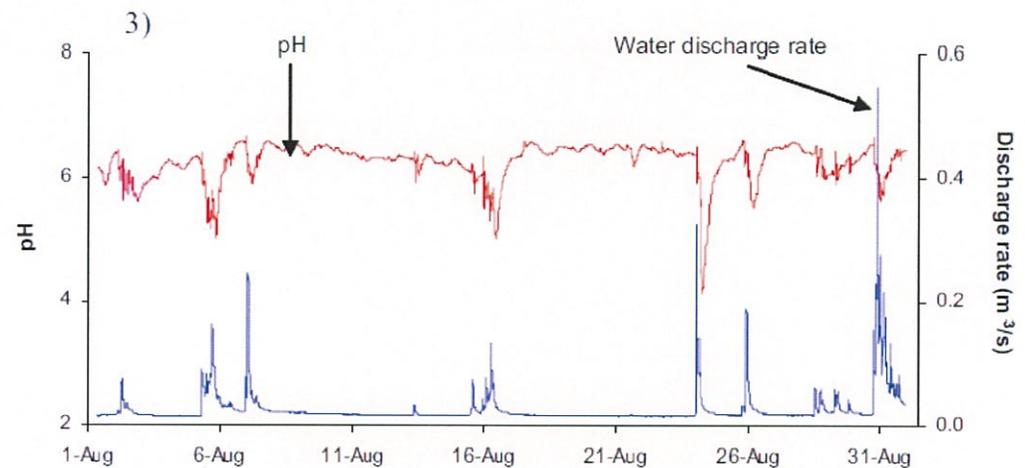
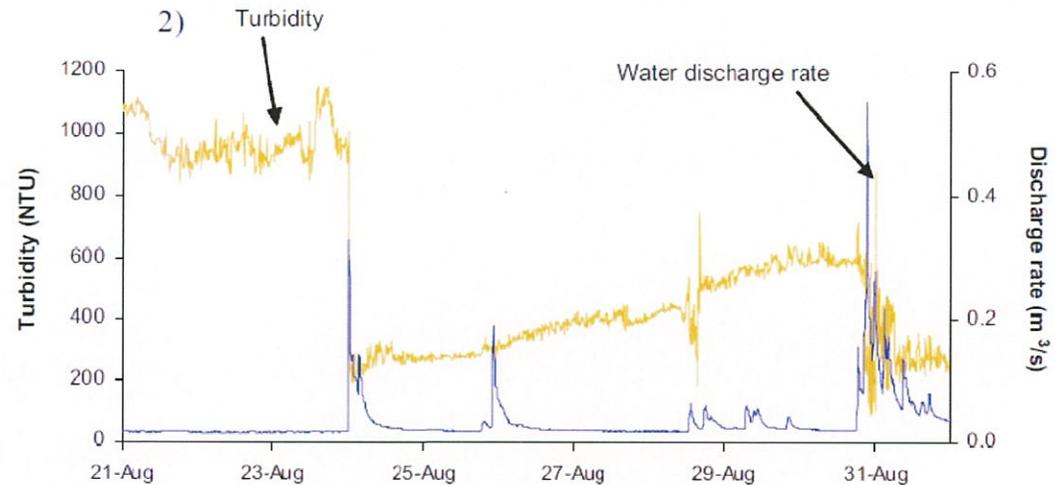
- Numerous studies dating back to 1978
 - Mostly grab sampling (exception of Tan, 2006)
- High metals concentrations
 - arsenic, cadmium, copper and zinc
- High nutrients concentrations
 - nitrogen, phosphorous
- Contaminated site
 - Tonkin Industrial Estate
 - EPA report contaminated plume extending to Ashfield Flats
 - Many reports confidential

Unique Drain flow vs pH relationship

- pH drops when flow increases
- pH and flow implicated in metals/nutrients mobilisation



pH changes key to understanding sources and mechanisms for high metals and nutrients concentrations in the Chapman Street Drain



Tan (2006)



Proposed Future Activities

- Conduct comprehensive geophysics survey of Reserve
- Install and sample a network of groundwater monitoring bores
 - Up to 12 groundwater monitoring bores
 - Sediment sampling (incl. ASS)
 - Water levels
 - Water isotopes
 - Sulphur isotopes
 - General chemistry
 - Metals
- Install drain monitoring
 - Flow meters
 - Flow gauging / sampling
 - Sampling in detail some storm events
 - Metals, isotopes, general chemistry
- Passive groundwater flux meters
 - Innovative groundwater samplers on the edge of drains to quantify contaminated groundwater flows into drains
- Wetland water levels and Swan-River interaction study
 - Install and maintain a monitoring network to quantify surface water interaction with the Swan River
- Conceptual and numerical model development
- UWA Student sampling
 - sediments and drain waters
 - Nutrients, metals, microplastics, street dust
 - Attract masters student project

Conclusion

- Aboriginal heritage clearance needed prior to commencement of intrusive studies
- Mindful of limits of scope/resources
 - Many competing objectives
 - Primarily to understand the hydrology
 - Geochemistry will largely help inform the hydrology



From: PM Steve <bpginc@bigpond.com>

Sent: Tuesday, 5 March 2019 10:54 AM

To: Town of Bassendean <mail@bassendean.wa.gov.au>

Subject: ATTN River Parks Committee-RE: Concern on misinformation regarding Ashfield Flats works

Members of the River Parks Committee,

I have attached an updated letter that encapsulates Bassendean Preservation Group's (BPG) experience restoring native vegetation at Ashfield Flats. I am concerned about recent comments posted on social media expressing a perceived lack of consultation on the Ashfield Flats Restoration Program. My understanding of the situation varies from that, as follows:

This is a map of the original Dept of Planning Lands and Heritage (DPLH) concept plan, as tabled at the Town of Bassendean (TofB) River Parks Committee Meeting held 06-Feb-18. The River Parks Committee was formed in early 2016 to improve coordination and community engagement on issues affecting Bassendean's natural environment. Dept of Biodiversity, Conservation and Attractions (DBCA) proposed this replacement for the existing combined use path consistent with the current best practice foreshore remediation strategies. The foreshore erosion at Ashfield Flats is a direct result of dog and human activity encouraged by the close proximity of the existing path to the river and absence of fencing, as the attached letter documents. A fenced buffer is required to reduce this damage. DBCA has recommended guidelines on the width of this buffer to ensure sustainability of the native revegetation.

Ashfield Flats Works Program: 2018-2023



Extensive consultation followed release of the original concept plan. The Ashfield Flats Restoration Program was the lead article in the 15-Jun-18 Bassendean briefings No. 121. Further consultation following the article included a DPLH community briefing held 30-Jul-18, continuing input from participants including the Community Representatives on the ToFB River Parks Committee, and opportunity for formalized general public feedback on the ToFB Your Say website that was extended to 15-Aug-18 to ensure full participation. According to the AshfieldCAN facebook page, representatives from that group also attended several additional meetings with DPLH in relation to the Program.

The archived Your Say site can be viewed here:

<https://www.yoursay.bassendean.wa.gov.au/ashfield-flats-reserve-draft-concept-plan>

I copied the image below from the archived ToFB Your Say site. This is the revised concept plan that eventually evolved. Jeremy Walker, the ToFB Senior Environmental Officer, was instrumental in negotiating a compromise agreement between the DBCA, DPLH, and the ToFB River Parks Committee that reduced the setback of the realigned path substantially but still offered some scope for revegetation mitigation of the foreshore erosion. You may recall the fence was originally scheduled for installation by 30-Jun-18. The delays are a direct result of the additional community consultation and resultant realignment of the original proposal.



The results of the DPLH sponsored ToFB Your Say consultation on the revised plan were compiled by DPLH in *Report on Community Feedback Received on the Ashfield Flats Draft Works Program 2018 – 2023 September 2018*. From page 6 of the report Summary of Key Findings the respondent's feedback to the key issues was:

- 53% supportive of relocating the existing path as proposed
- 59% not supportive of dogs (or dogs off leash)
- 63% in support of the proposed fence alignment, stating that the fence will assist to protect nature as well as wildlife, and support the landscape plan

The report was attached to the agenda for the River Parks Committee meeting held 13-Nov-18 and included in the minutes as Item 8.1. Members of the Committee would already be aware of the findings that reflect positively on DPLH's modified path alignment in response to community input. However, this does not appear to have been more broadly socialized, e.g. in the Bassendean Briefings.

It would appear a small but vocal minority are using social media in an attempt to exert unwarranted influence on this issue with statements that are not wholly supported by the facts. It might be useful to encourage a more fully informed conversation by broadly communicating the beneficial role of the River Parks Committee and Community Representatives in engaging the community; the efforts made by DPLH to receive and accommodate feedback; and the positive response reflected in the Your Say submissions.

I'll sign off with this video recorded 26-Aug-18 by one of our members while BPG was planting-out at the Outlook. Regulars in the group say this is an all too frequent occurrence at Ashfield Flats:

<https://1drv.ms/v/s!Ag8p5H5c3meYhwjpefWnRFwziaL8>

Kind regards,

Steve McFarland

Propagation Manager, BPG Inc.
0421 355 454



[www. bpginc.info](http://www.bpginc.info)

PO Box 75
Bassendean WA 6934
Australia

05-Mar-19



River Parks Committee
Committee Room
48 Old Perth Road, Bassendean
Bassendean WA 6054

[www. bpginc.info](http://www.bpginc.info)

PO Box 75
Bassendean WA 6934
Australia

RE: Fence required to reduce destruction of foreshore revegetation by off lead dogs at Ashfield Flats

Dear Committee Members,

With the fence construction commencing at last, you're no doubt aware of complaints from the various Ashfield and Bassendean off lead dog walking activists concerned about what they view as the Dept of Planning Lands and Heritage's (DPLH) abridgment of their perceived right to freely run dogs on DPLH land at Ashfield Flats. Ashfield Flats is a recognized high value conservation area, regionally significant wetland, the largest remaining river flat in the Perth Metropolitan Area and Bush Forever Site No. 214. BPG would like to thank you for your efforts to educate and promote community consultation on this issue via the attending Community Representatives, and thought you might like to hear about BPG's experience at Ashfield Flats.

The Bassendean Preservation Group Inc (BPG) formed in 1985 to oppose and ultimately defeat an inappropriate canal development proposal for Ashfield Flats. In 1986, BPG started revegetating this former dairy's degraded paddocks in hopes of discouraging future such attempts. Figures 1 and 2 illustrate what BPG has accomplished over the years with the advice and support of DPLH, Dept of Biodiversity Conservation and Attractions (DBCA), and Town of Bassendean (TofB) Environmental Officers. Apologies if this is all old news. But we find we are usually mistaken for Council workers or contractors, and very few residents enjoying Ashfield Flats realize that virtually every native plant they see there has been propagated and planted out by BPG volunteers.

BPG has engaged in extensive Swan River foreshore revegetation, particularly in recent years as the scale of the erosion has become more evident. Unfortunately our work on the foreshore is hindered by off lead dogs trampling the revegetation works and aggravating the damage in pockets where washouts have occurred. BPG finally had to curtail open plantings adjacent to the shoreline in 2014 because of the near certainty of failure. The native seedlings we plant are vulnerable until they are well established, and the amount of dog traffic the foreshore is subjected to makes planting out seedlings without some means of protection unviable.

The last major attempt BPG made to plant out on the unprotected foreshore was 28 September 2014. On that morning BPG volunteers planted out 365 *Casuarina obesas* and 216 rushes, mostly *Juncus kraussii*. BPG conducted spot weed control prior to the planting to ensure the plants a decent head start. By the following January there were only a handful of survivors and by March all but one *Casuarina obesa* had been trampled. The attached pictures Figures 5 to 14 tell the story.

Protecting and Enhancing Bassendean's qualities



National Volunteer Week - Certificate of Appreciation for 30 Years Service to Community 2014
Premier's Australia Day Active Citizenship Award 2009 – Bassendean
Thank a Volunteer Certificate of Appreciation - Dept of Communities Dec 2008



Figure 1 – Ashfield Flats in March, 2004. BPG’s earlier plantings already in evidence.



**Figure 2 – Ashfield Flats in March, 2017.
*Protecting and Enhancing Bassendean’s qualities***

This is in stark contrast to the near 100% survival rate behind a short section of fence directly upstream of the Boardwalk installed by the Senior Field Management Officer of the then Department of Planning (DP) in February 2015. The fence is open at the upstream end and has unlocked pedestrian gates midway and at the Boardwalk. While full foreshore access is still provided, the fence is effective at screening out most of the dog traffic. Revegetation behind the fence along the foreshore and at the adjacent Dog Bay mitigation project funded by DP and project managed by the ToFB's Senior Environmental Officer has been spectacularly successful. Figures 15 to 17 refer.

The Dog Bay mitigation project demonstrates that soft engineering solutions as proposed in the recent draft Ashfield Flats Works Program are effective at controlling erosion while retaining the river's natural values. BPG does not wish to see hard engineering on any section of the Swan River turn the foreshore into a barren, sterile limestone meter-block sea wall. The short fence associated with the Dog Bay mitigation project clearly refutes claims that fishing activity is the primary cause of the revegetation destruction as access for fishing is not restricted.

Ashfield Flats has endured a long history of inappropriate activities that include misguided sedge clearing, foundry tipping, an informal trotting track, worm digging, and motorcycle and 4W drive hoons. Thankfully with education and growing awareness, these uses no longer enjoy wide spread acceptance as the norm. BPG looks forward to the day when off lead dogs freely roaming the foreshore and trampling native vegetation joins the list of these historical anomalies. Ashfield Flats is unusual among Bush Forever sites in that it allows dogs at all.

BPG strongly supports DPLH's efforts to follow accepted bush care best management practices to reduce the abuse this critical environment is currently subjected to. Figures 22 to 24 are examples of how other local land managers are using fences to protect the foreshore until revegetation can take hold. Once established, native rushes provide an effective first line defense against erosion. Casuarina obesa's intertwining roots help stabilize the river banks and branches provide shade for aquatic habitat. When the vegetation is damaged, the bank is directly exposed to boat wakes and the erosion accelerates.

BPG looks forward to working with DPLH, DBCA and ToFB to continue the foreshore revegetation that has proved so successful behind the existing fence, and to expand the plantings once the new fence and path realignment are complete and providing a measure of protection.

We hope you will find this information useful and will join us in supporting DPLH's necessary and reasonable actions to protect and preserve the foreshore. Please feel free to contact me with any questions or concerns or if you would like a walking tour of the sites in the photos.

Kind regards,



Steve McFarland
Propagation Manager, BPG
bpvinc@bigpond.com
mob 0421 355 454

Protecting and Enhancing Bassendean's qualities



Figure 3 – Dogs On Lead sign in July 2013, since removed.



Figure 4 – The current sign at Ashfield Flats. Note ToFB has no authority to establish an off lead dog exercise area on this land that is not owned or managed by the Town.

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Figure 5 – BPG volunteers planting several of the 365 Casuarina obesa in a prepared spot.



Figure 6 – The foreshore spot already showing abuse from relentless traffic, but still a seedling survives.

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Figure 7 – And then there was none. One month later.



Figure 8 – Mid summer and the foreshore is a well-trodden, beaten dusty mess. Even weeds don't have a chance.

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Figure 9 – Freshly planted *Juncus kraussii*. BPG has attempted infill here at Rocky Bay for years.



Figure 10 – Erosion continues as the Rocky Bay dog thoroughfare tramples all but the *Juncus* on the margins.

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Figure 11 – This is a close up example of one of BPG’s revegetation attempts at Rocky Bay.



Figure 12 – Same view almost a year later on 07-Mar-17. Only the Juncus outside of the dog traffic survives.

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Figure 13 – BPG planted Juncus infill behind remnant surviving rushes.



Figure 14 – Six months later not a trace survives under relentless paw and foot prints.

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Figure 15 – Compare the previous photos with the results at Dog Bay. This was before the fence was installed.



Figure 16 – Dog Bay one year after fence installation. BPG has returned each year to plant more successful infill.

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Figure 17 – Same Dog Bay view two years later with the recovery nearly complete. Recommended viewing.



Figure 18 – Tread carefully though. This awaits you just outside the Boardwalk access gate. It's everywhere.

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Figure 19 – Meanwhile beyond the extent of the fence visible in the top right, the damage continues.



Figure 20 – This was just one ordinary mid-week morning. Repeated daily.

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Figure 21 – The erosion washouts appear to be triggered at locations of concentrated activity, like this bench.



Figure 22 – Inexpensive but effective temporary foreshore fence about 1.5km upstream of Garvey Park

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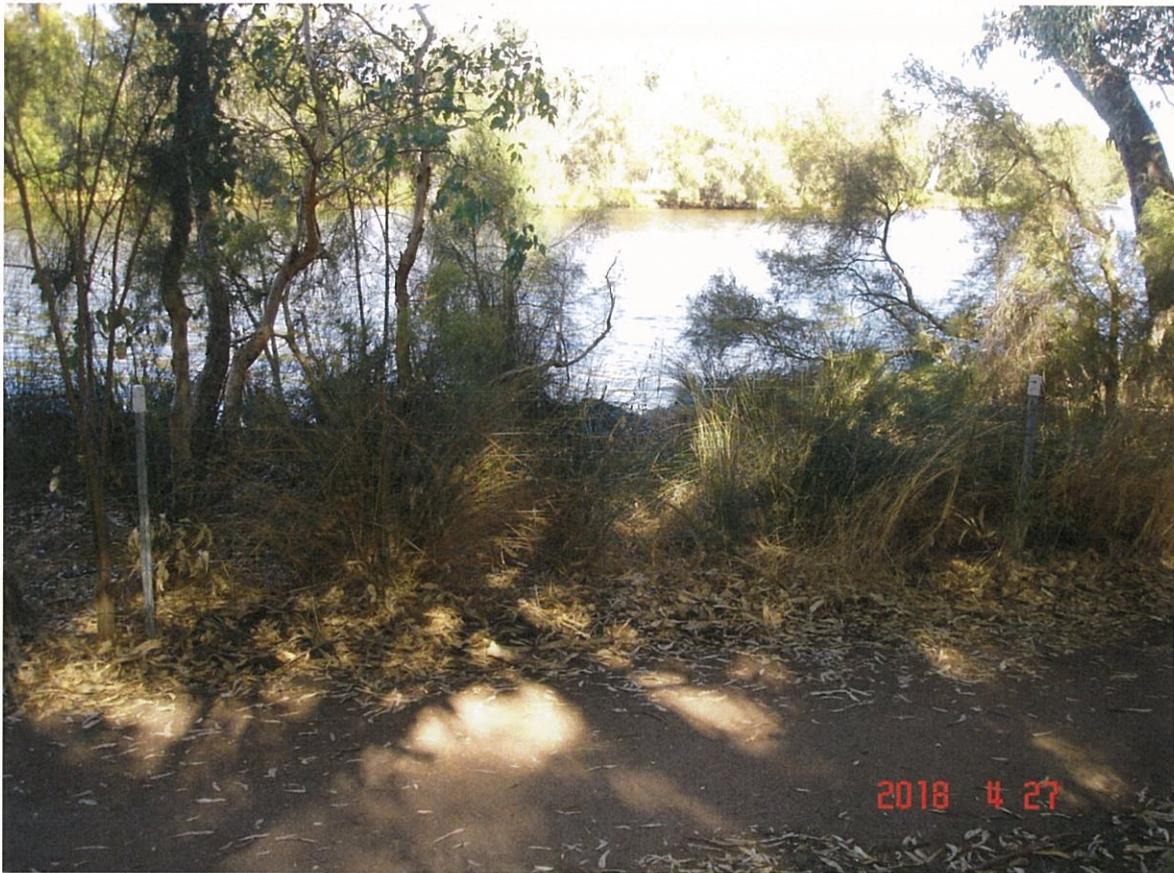


Figure 23 – Fence near the French St steps installed by ToFB Senior Environmental Officer.



Figure 24 – An attractive wood pole open mesh fence and thriving foreshore infill, Garvey Park.

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Figure 25 – There is a tendency in some quarters to scapegoat fishermen for the damage to plantings.



Figure 26 – Our experience indicates fishermen are not the primary contributors to the environmental damage.

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Viewing Area

Fire Access

Fringing Woodland

Restored Area

Restored Area

Rev vegetated Woodland

Boardwalk

Foreshore Revivification
(remove existing path)

Realigned path

Nature Play Area

“Dry park” and street verge lawn mowing practises in the Town of Bassendean

Contribution to ecosystem services - is it positive or negative?

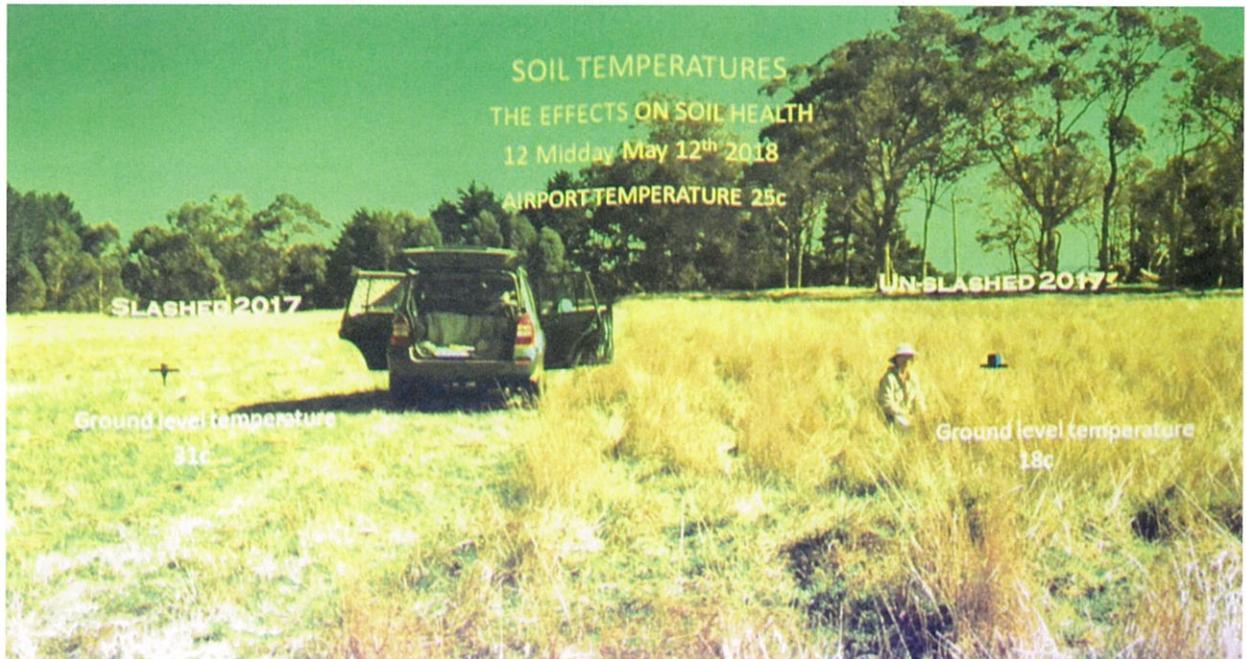
- Surface water catchment and quality / biological oxygen demand of surface runoff
- Pollutants (ie nutrients nitrogen, phosphorus, herbicides, pesticides, road contaminants) entering waterways via lawn clipping debris and increased surface runoff from bare ground
- Evaporation (up to 90% off bare ground) rather than infiltration of rainfall for aquifer recharge
- Loss of habitat values, particularly for invertebrates and their predators
- Increased Land Surface Temperature & Urban Heat Island Effect
- Spread of weed seeds & dust
- Germination of opportunistic weeds & colonising species on bare ground
- Direct impact soil erosion - soil runoff into waterways
- Compaction of soil surface - poor rhizosphere, low oxygen, poor water infiltration, direct damage to root systems.
- Longer grass collects (traps) leaf litter, flowers, seeds, nuts etc before they can enter drains and natural waterways.

Bindaring Park winter 2018





Land Surface Temperature comparison: In this example 31C vs 18C, however a recent demonstration in suburban Perth showed 67C vs 51C



Friends of Bindaring Wetland Bassendean

28/2/2019

RE: Bindaring Wetland Concept Plan Development

During our last meeting the group raised concerns around three concept plans that have been proposed for Bindaring Wetlands. The Friends of Bindaring Wetland Bassendean requested a review of the Bindaring Wetland Concept Development Report July 2017, with a specific consideration of the northern section of the wetland.

The purpose of the Bindaring Wetland Concept Development Report, as outlined in the document, is as follows:

The Town of Bassendean are seeking to improve the ecological and recreational value of Bindaring Park. The objectives of the study are to:

- *Undertake further technical assessments including geotechnical and acid sulphate soils investigations, fauna survey and hydraulic modelling to further characterise the opportunities and constraints associated with the improvement of Bindaring Park.*
- *Draw on previous and current technical investigations to develop three concept design options for the improvement of water quality, ecological value and recreational value of the park.*
- *Provide a comparison of water quality treatment effectiveness and costs for each of the three concept design options.*

The report provides a very good overview of the dynamics and influences on Bindaring Wetland. The information provided within the report and through the various studies provide very informative detail which will be beneficial for both the Friends Group and the Council in any future management of the wetland.

In reviewing the report and recommendations it appears that the focus of the report is towards achieving a final objective regarding water quality treatment. The three concept designs focus heavily on this outcome. In considering the objectives of the study, the proposed concepts provided within the report may have been skewed by a need to quantify the nutrient improvement outcome; then viewing the wetland as the receiving environment not as an essential part of water quality improvement.

The comparisons in relative water quality improvement are provided utilising the Department of Water's UNDO modelling tool. The UNDO tool is a very well-developed model, with significant scientific rigour behind the assumptions within the model. It provides a very good measure of the level of nutrient reduction likely to be achieved through the implementation of a range of Water Sensitive Urban Design (WSUD) recommendations. The UNDO model is however only an effective model for surface flow nutrients, providing the nutrient reductions to the receiving environment given specific WSUD interventions. Bindaring Wetland however, is primarily an expression of the ground water flow as such the stormwater networks are a relatively smaller contributor to the water and nutrient passing through the wetland. The UNDO tool is not a model for groundwater. All of this is acknowledged within the document.

The shallow groundwater of the Swan Coastal Plain contains very high levels of nutrients (Phosphorus and Nitrogen). For Bindaring Wetland, while the stormwater does contribute nutrient to the wetland, this contribution must be considered secondary to the contribution entering the wetland through the groundwater. This is not to say that managing stormwater is not important,

only that the cost benefit of a treatment option at a specific drainage outlet must be considered in the context of what would be contributed from that specific sub catchment. Stormwater treatment is managed in the manner described within the document. The management of groundwater nutrients however, requires a greater focus on a catchment management approach to reduce the level of nutrient entering the groundwater.

Nutrients within the shallow ground water can be captured/treated via three primary pathways.

- through binding to the soil particles,
- uptake by deep rooted native vegetation which utilise the nutrient and bind the nutrient in the growth of the vegetation, and
- through microbial activity, the level of this activity increases in association with the root zone of vegetation.

When ground water comes near the surface in wetlands such as Bindaring Wetland, the wetland provides the conditions for all three of these primary nutrient treatment pathways. Bindaring Wetland itself is already contributing to the improvement of the water quality.

The northern section of Bindaring wetland is primarily a seasonal wetland. Permanent water flows into the site from one stormwater outlet. This stormwater network is likely to be draining groundwater from the urban catchment. Considering this, any future design for the northern section of the wetland would need to consider the nutrient and pollutant contributions from this drain as an initial focus following which the focus should be on enhancing the wetland to improve its ecological function. The remaining drainage outlets into the wetland within the northern section can be assessed for their nutrient contributions but their priority is likely to be significantly lower than the benefit that can be achieved through the enhancement of the wetlands ecological function.

The existing wetland must be recognised as an asset within a treatment and management approach. Through focusing on enhancing the wetlands ecological function, the objective of water quality treatment will be achieved (although this may be more difficult to quantify) and the remaining objectives of improving ecological and recreational value can also be achieved.

I am happy to clarify any queries as required and assist the group as needed to progress the management of the wetland.

Regards
Brett Kuhlmann

WALGA Weeds Forum

I was very fortunate to be able to attend the recent WALGA weeds forum hosted by the City of South Perth. Many Local Government parks and gardens staff, environmental health officers and other LGA administrators attended. In addition, many local government NRM friend's groups and state and federal regulatory agencies also attended. From the WALGA website this summary describes the event and provides links to presentation which I highly recommend you view.

The WALGA Weed Management Event was held in February 2019, hosted by the City of South Perth. The event focused on the overarching legislation and strategies that provide a framework for coordinated weed management in WA and Australia, the latest approaches in integrated weed management, and the risk assessment and liability considerations for chemical herbicide use. The City of South Perth discussed how they use a variety of methods to control weeds, including suppression planting, mulching, pelagonic acid, steam treatment and synthetic chemicals. Presenters outlined how to minimise the ecological impact of weeds by prioritising species according to their invasiveness and potential impacts on surrounding biodiversity values, as well consideration of the feasibility of control. Several speakers noted that their underlying objective of weed control in natural areas is protection and restoration of diverse natural systems, rather than total eradication. The City of South Perth also provided a steam treatment demonstration for aquatic and herbaceous weeds. The presentations can be found below:

- [Legislative and management framework for weeds in Western Australia](#) (Kay Bailey, DPIRD)
- [Weed management for conservation](#) (Kellie Passeretto, DBCA)
- [Integrated weed management in practice](#) (Kaija Antipas, City of South Perth)
- [Chemical weed control: liability considerations and mitigation measures](#) (Joan Cavalieri, LGIS)
- [Fire as an opportunity for weed management](#) (Julia Cullity, DBCA)
- [Weed mapping and reporting](#) (Kay Bailey, DPIRD)
- [WALGA preferred supplier arrangement for parks and gardens](#) (Craig Grant, WALGA)

I was particularly pleased to receive a presentation about the policy framework for weed management by DPIRD that explained the "invasion curve" and the priorities recommended to LGA's when managing weeds in natural and urban areas. I know many other RPC members and NRM groups would appreciate this information and the knowledge that investing in prevention was a key priority recommendation for all weed managers. This is because of the immense cost savings found in prevention compared to asset-based protection where chemical treatments are heavily relied upon.

This should be a key consideration for all LGA's given the increasing and ongoing costs including health and environmental costs for weed management in the urban environment. While a business as usual approach for most LGA's is to resort to broadscale chemical applications, more attention and investment in prevention can yield comparatively effective results and save LGA's (and their ratepayers) significant costs.

For example, these could include,

1. Greater hygiene when mowing and whipper-snipping weeds,
2. Better collection of wastes (ie cut grass and weeds),
3. Attention to the life cycle of weeds so as to avoid spreading weed seed,
4. Designing open spaces, hard surfaces and other urban environs to prevent weeds
5. Suppression planting techniques
6. Mulching

Kellie Passeretto presented for DBCA and highlighted the importance of weed mapping and classification.

Interestingly it was a surprise to hear that DBCA considers 'asset protection' as their priority, followed then by prevention, eradication and management effectiveness. Perhaps this is why advice received from DBCA to LGA's often prioritises chemical applications ahead of preventative measures. In any event, this is something for LGA's to consider especially given the following presentation on LGA Legal Liabilities.

Joan Cavaleri from LGIS gave a very clear and easily understandable presentation on LGA legal responsibilities when using chemicals to control weeds. (ppt above)

Joan highlighted that at every stage LGA's are liable for the safety of their staff and the public when preparing, transporting, storing and applying pesticides. She outlined the OH&S and other laws relevant.

The City of South Perth senior environment officer Kaija Antipas, provided a great presentation about their successful weed management practices and trials showing that steam and other preventative measures were successfully managing weeds in their City. Of particular interest was their report on the effectiveness particularly of steam in aquatic environments. They highlighted the great results being achieved in drains especially.

The APVMA gave a presentation via skype on the status of Glyphosate regulation in Australia. This has not changed in 20 years despite new studies and recent events including overseas bans and legal cases.

While I was not able to be present for the full WALGA preferred supplier presentation I was disappointed to hear that Turfmaster remains on this list. One would think that after a prosecution for causing the death of 8000 trees and contamination of groundwater, such companies would be excluded from our state LGA tender process.

Of particular interest to me, was the presentation by the Denmark Weed Action Group who demonstrated that even in robust national park environments, hand weeding was effective.

I took the opportunity to send an email to the City of South Perth and WALGA following the forum. This event was a great leap forward for LGA's to support each other, share information and work towards a safer urban environmental weed management. The chats between presentations as you can imagine, were positive and encouraging.

Here is a copy below, of my email to WALGA and City of South Perth for your information as it contains information that you may find useful.

Dear (WALGA) and (City of Perth),

I just wanted to congratulate you on the Weeds Forum held this week which I attended on behalf of Friends of Success Hill Reserve in Bassendean.

While I do not agree with all the views presented, this forum was much needed not only for Local Government staff but also for local NRM groups and the public in general. The role of Local Governments in managing weeds, especially through operational services on hard surfaces, is of increasing public interest and concern, as I am sure you are well aware. It was such a great opportunity for Local Governments and groups to engage with each other and share information. If only we had more such opportunities. Congratulations!

Well done especially to the City of South Perth for hosting the event and especially to the acting Natural Resource Management Officer, Kaija Antipas who was a voice of reason on the day.

I was also very impressed to see that the Denmark Weed Action Group was given the opportunity to share their experience and knowledge. Their work was inspirational, so thank you for choosing this group to present to us.

I want to share this recently published international scientific study with you because it makes direct reference to a study that the APVMA has used to claim that Glyphosate is as safe as coffee and that the WHO International Agency for Research on Cancer (IARC) is incorrect in classifying Glyphosate as a Class 2 Carcinogen. The APVMA's position on Glyphosate and subsequent advice to Local Governments, fails to support Local Governments and their communities in managing weeds both on hard surfaces and in the natural environment and the risks associated with these applications.

<https://www.sciencedirect.com/science/article/pii/S1383574218300887>

I feel that it is imperative that Local Government Authorities have access to the best advice available not only to prevent adverse experiences but also to protect the risk liabilities local governments increasingly face. The report's authors (see attached) state , *"We independently investigate whether there is an association between high cumulative exposures to glyphosate and increased risk of non-Hodgkin lymphoma (NHL) in humans and conduct a new meta-analysis that includes the most recent update of the Agricultural Health Study (AHS) cohort in 2018 along with five case-control studies."*

The Agricultural Health Study (AHS) has long been used by the APVMA as proof that GBH's are not associated with NHL. Yet these independent scientists specifically considered this study and still concluded, "Overall, in accordance with evidence from experimental animal and mechanistic studies, our current meta-analysis of human epidemiological studies suggests a compelling link between exposures to GBHs and increased risk for NHL."

It's important that local governments have access to the latest research and evidence related to the use of Glyphosate for the safety of their workers especially and their communities. I can appreciate how confusing and alarming it must be for Local Governments who carry the burden of risk liabilities from pesticide applications many of which are essential, and the conflicting regulatory advice they must rely upon to do this work.

In addition, while I am very grateful for the presentation by LGIS risk consultant, Joan Cavalieri, outlining the basics of local government's legal responsibilities in relation to pesticide applications, it was disappointing that the most relevant and applicable legislation was not provided to the forum participants.

The WA Health Act (Pesticide regulations) defines the legal requirements for public place applications. I do hope that the WALGA will ensure that all LGA's are fully aware and compliant with this specific legislation.

[https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_28624.pdf/\\$FILE/Health%20\(Pesticides\)%20Regulations%202011%20-%20%5B01-00-00%5D.pdf?OpenElement](https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_28624.pdf/$FILE/Health%20(Pesticides)%20Regulations%202011%20-%20%5B01-00-00%5D.pdf?OpenElement)

I also think it would be of benefit to WALGA and LGA's to be aware of more relevant legal case studies in relation to pesticide applications by local governments. The pesticide contamination caused by Turfmaster in the Cities of Joondalup and Stirling are clearly relevant and essential for LGA's to understand, so as to prevent similar occurrences. The deaths of 8000 trees and the

contamination of our groundwater aquifers is a very serious matter and I'm sure WALGA would want to ensure LGA's do not fall victim to such events ever again.

I also think it is important for LGA's to be aware of the US court case that found that a ground-keepers cancer (Dwayne Johnstone) was in fact associated with his regular use of Glyphosate, given its global legal significance and relevancy to LGA workers health and safety.

<https://www.insurancejournal.com/news/national/2018/10/23/505318.htm>

<https://www.euractiv.com/section/agriculture-food/news/us-lawyers-confident-to-win-more-glyphosate-related-legal-cases-against-monsanto/>

Please do feel free to pass on my email to other LGA's for their records.

Again, thank you for hosting this most important forum.

Jane Bremmer

Friends of Success Hill Reserve

Bassendean