



8 June 2017

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Appeals Convenor
Office of the Minister for Environment; Heritage
Level 22 Forrest Centre
221 St Georges Terrace
Perth WA 6000

Dear Appeals Convenor

**APPEAL ON EPA REPORT 1597 FOR ASSESSMENT 2111
Perth Groundwater Replenishment Scheme Stage 2**

Proponent: Water Corporation

Appeal by Urban Bushland Council WA Inc.

PO Box 326 West Perth WA 6872

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Contact persons: Mary Gray, President: direct phone 9444 5647, or Margaret Owen, Secretary 9381 1287
Representatives of the UBC wish to request the opportunity to meet with the Appeals Convenor concerning this proposal and the EPA's report and advice.

General comment

Please note that representatives of the Urban Bushland Council (UBC) met twice with the Water Corporation at their request before assessment of this proposal by the EPA. It is disappointing that our advice, given in good faith and by representatives who are scientists and citizen scientists with considerable relevant expertise, was not seriously addressed nor used. It is of great concern that Bush Forever sites are being used by the Water Corporation as a 'dumping ground' for infrastructure.

GROUNDS OF APPEAL

Ground 1: Failure to avoid Environmentally Sensitive Areas: Bush Forever sites and CCW

Concerns: The pipeline has been mostly located in Bush Forever sites and especially along the eastern side of Lake Joondalup which is also a Conservation Category Wetland (CCW). The edges and buffer zones around CCW and Bush Forever sites should have been avoided. Notably we advised this when meeting the Water Corporation. Maximum avoidance of environmental impacts should have been the primary and overriding consideration in location of the pipeline. However there was more concern to avoid Main Roads. Also the Water Corporation did not seem to understand that locating the pipeline along the eastern side of Lake Joondalup Nature Reserve would have a significant impact of edge effect with root disturbance. This was explained to them in detail by experienced botanist Bronwen Keighery at our meetings. The area disturbed will be much greater than shown in the assessment.

Further the EPA's statement below is inconsistent with their advice to accept the pipeline location in three Bush Forever Areas:

'The EPA has also considered the design guidelines for planning and development in EPB20, particularly guideline 6. Guideline 6 recommends that infrastructure should not be located within consolidated retained naturally vegetated areas. Infrastructure has the

potential to disrupt the connectivity of these areas and reduce the environmental values and long term viability of the area through fragmentation and edge effects.' (our underline emphasis)

Outcome sought: The Minister remits the proposal to the EPA and the proponent for choice of location for the pipeline to be *completely revised* according to the *principle of avoidance* (ie. step 1 of offset policy) and the *principle of prevention* of vegetation damage of Bush Forever sites, CCW's and their buffer zones. Existing service corridors such as roads – to the west side and distant from Lake Joondalup - should be used.

We recommend that the pipeline be located within existing road corridors to the west of Lake Joondalup but not along either the eastern or western *edge* of Lake Joondalup and surrounds (Bush Forever site 299). Leaving the Beenyup facility slightly to the north west, the pipeline could then go north along existing roads to and along Lake Joondalup Drive thereby *completely avoiding* Bush Forever sites 407 and 303, and nearly all 299 except for its northern tip. This appears to be a shorter and more direct route.

Ground 2: Failure to avoid Acid Sulfate Soils (ASS) and Potential Acid Sulfate Soils (PASS)

Concerns: The location of the pipeline along the eastern side of Bush Forever site 299 and at places close to the lake edge is unacceptable as this includes ASS and PASS. This is recognised in the GHD Report on page 21 in section 7.2.1 where it states that the project site is identified as high risk level for ASS. Their tests of 'swamp deposits' showed a pH range from 1.7 to 7, with two samples showing pH <4.

These areas could easily be completely avoided by relocation of the pipeline into landforms free of ASS and PASS which occur on landforms to the west of Bush Forever 299.

It is a major concern that the Water Corporation does not seem to understand that disturbance to Acid Sulfate Soils should always be avoided when there is an alternative option available. The inherent risk features of the landscape must be given precedence. Acidification of soils and local groundwater flow may occur as a result of just one single dewatering event. This could put Lake Joondalup at risk of acidification and this risk should be avoided. Areas of ASS and PASS must never be dewatered but the Water Corporation and the EPA do not seem to understand this:

'The EPA notes that a DoW licence is required for dewatering and considers this is the most appropriate method for managing any potential temporary impacts to water resources from dewatering during construction.'

These so-called potential temporary impacts are not reversible. The promise of an ASS Management Plan and DOW licence do not justify a significant environmental impact which could easily be completely avoided by relocating the pipeline in areas not subject to ASS and PASS risk. And avoidance would be much cheaper.

Outcome sought: The Minister remits the proposal to the EPA and to the Water Corporation for revision of the pipeline location so that all ASS and PASS sites are avoided by relocating the pipeline well to the west of Bush Forever 299 and its buffer zone. Further that no dewatering is allowed for all locations of the pipeline and if necessary, wet construction techniques are used.

Ground 3: Indirect impact on Banksia woodlands

Concerns: There will be considerable indirect impacts to Banksia woodlands in the three Bush Forever sites. Trenching and tunnelling along cleared tracks and disturbed edges will destroy roots of nearby Banksias and other species as they have extensive spreading root systems. This impact was described in detail to the Water Corporation when we met with them and it is a major concern that this factor has been ignored by the Water Corporation and by the EPA:

'3. The EPA has concluded that the proposal may be implemented, provided the implementation of the proposal is carried out in accordance with the recommended conditions and procedures set out in Appendix 4. Matters addressed in the conditions include the following:

- a) ensuring there are no indirect impacts to Banksia woodlands from trenchless technology construction within five years post construction.' (our underline emphasis)

There will inevitably be significant indirect impacts of: edge effects; decline in woodland vegetation condition; surface soil disturbance resulting in increased grassy and other weed invasion and thus increased fire risk; increased risk of Dieback invasion; increased risk of Marri Canker and other diseases. Dewatering in ASS and PASS is also a risk to vegetation health. Just because there are degraded edges in Bush Forever site 299 does not justify more disturbance and increased edge effects and soil acidification. Water quality risk via acidification to Lake Joondalup is also totally unacceptable.

Outcome sought

- 1. The Minister does not accept the advice of the EPA and declares the proposed pipeline route environmentally unacceptable on the above three grounds.**
- 2. The Minister remits the proposal to the EPA and the Water Corporation for revision** of the pipeline location out of the east side of Lake Joondalup and into existing road reserves to the west of the Lake thereby avoiding all of Banksia woodlands in Bush Forever sites 407, 303 and most of 299 as described above. The continuing incremental damage to Banksia woodlands patch by patch is unacceptable and must be stopped by the Minister. This responsibility is now imposed on the State Government by the listing of the Banksia Woodlands as a TEC under the EPBC Act and the federal Minister's Approved Conservation Advice which calls for an end to the loss of this endangered ecological community and further, for its restoration by all levels of government.

For your consideration

Yours sincerely

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ATTACHMENT

A copy of our advice to the Water Corporation after meeting 13 March 2017 is attached.

Groundwater Replenishment Scheme Expansion: location of pipeline

Meeting of Urban Bushland Council with Water Corporation 13 March 2017

Our key advice can be summarised as follows:

- 1. Avoid Bush Forever:** Bush Forever sites should be avoided at all costs. The cost of damage to Bush Forever sites is ongoing. Choice of location for the pipeline should start with **avoidance** of all Bush Forever Areas, Conservation Category Wetlands (CCW), and Acid Sulfate Soils. These environmental attributes of the natural landscape and identified conservation areas must be protected as the overriding factor in choice of location. The principle of avoidance, and the principle of prevention (of vegetation damage) should be employed. It is noted that our advice from our earlier meeting last year was not used in the current proposal.
- 2. Use roads:** Existing service corridors such as existing roads should be used. We recommend that the pipeline be located along a road on the western side of Lake Joondalup and **not along the either edge of Bush Forever site 299**. There are roads on the west side of the Lake well away from BF 299 which could be used. (The road names are not shown on the map). Joondalup Drive is suggested.
- 3. Avoid ASS:** The landform and soil types to the west of the Lake are much less likely to include Acid Sulfate Soils (ASS). The current proposal for the pipeline to be on the east side of the Bush Forever site 299 and at places close to the lake edge is not acceptable due to inevitable damage to the vegetation from root disturbance as we explained *and* likely disturbance of ASS. There should not be any dewatering. Detailed landform and soil mapping should be examined and ground truthed to avoid all areas of ASS and potential ASS (PASS). It was disappointing that the Water Corporation's expert on ASS (Neave Hade) was not present at our meeting.
- 4. Alternative location:** On viewing the map it was suggested that a pipeline route along roads to the west would be much shorter being more direct. It would likely avoid all ASS. It would completely avoid BF 407 and could avoid BF 303 (Beenyup). It would avoid nearly all the incursions and damage to BF 299 (Lake Joondalup). The route could start by going along the road to the **west** side of the bushland at Beenyup and thereby completely avoid BF 407. It could then go north along either Joondalup Drive or the Mitchell Freeway.

We strongly recommend that this revised location be carefully planned and costed.

Again we emphasise that the superior considerations must be those of the natural landscape. Main Roads' preferences are secondary and should not dominate choice of pipeline locations.