



Memorandum

TO: [REDACTED]
FROM: TERRESTRIAL ECOSYSTEMS BRANCH [REDACTED]
DATE: 8 MAY 2018
SUBJECT: URBNSURF PERTH (TOMPKINS PARK) WAVE PARK ALFRED COVE
FILE NO:

[REDACTED]

Terrestrial Ecosystems Branch provides the following response to your request for advice on the URBNSURF Perth (Tompkins Park) Wave Park project in Alfred Cove, for decision on formal assessment. This advice is given based on information provided for review with the memo 16 April 2018 and following discussion with [REDACTED] (DBCA [REDACTED]) and [REDACTED] (DWER Swan Avon Region, [REDACTED]).

Advice requested

1. Is the finding of the waterbird survey accurate, in that the Swan River habitat opposite the proposal area (Zone 5) does not typically host habitat for migratory water birds?
2. Based on the referral information stating that there will be no expected Swan River water quality impacts, and less noise and light impacts, is it expected that construction and operation of the proposal would impact on Swan River fauna habitat?
3. Are there any additional mitigation measures that the proponent could undertake to manage impacts flora and fauna values associated with the Swan River?

EPA FACTOR: FLORA AND VEGETATION

Objective: *To protect flora and vegetation so that biological diversity and ecological integrity are maintained.*

There are unlikely to be significant impacts to flora and vegetation, and the mitigation measures are likely to manage direct impacts. PGV Environment (2018) states that no clearing of any native vegetation within Bush Forever Site 331 is proposed, no clearing of native vegetation is required anywhere for the proposal, and no potential negative impacts are anticipated. However, the referral information does not sufficiently demonstrate that the proposal is unlikely to impact on adjacent Flora and Vegetation, or better characterise the proposal and surrounding area so the significance of any impact can be understood.

Adjacent Flora and Vegetation values that are inadequately described include:

- Conservation Category Wetland (CCW) – Swan River and surrounding wetland vegetation. This is also defined as High Value wetland in the unpublished DCBA/DWER 2017 wetland review. The referral states that there will be no water quality impacts, but contingency measures should be stated. Potential water quantity impacts should be monitored and managed.
- Threatened Ecological Community: Subtropical and Temperate Coastal Saltmarsh. The native vegetation along the Swan River directly adjacent to the proposal is listed under *EPBC Act* as a Vulnerable TEC and also listed by DCBA as a Priority 3 PEC, according to internal GIS records, but no vegetation map or species lists were provided for this area in the referral. Assessment of this vegetation is required for determining monitoring potential indirect impacts, and devising any required contingency measures to manage potential impacts, such as the three above.

Three potential impacts:

1. Altered hydrology: The report should specify how the ongoing connection with the tidal regime of the Swan River which is of critical importance to the survival of the Coastal Saltmarsh ecological community (DSEWPC 2013, page 17) will not be impeded by the proposal, to demonstrate that the proposal is unlikely to pose significant impacts to this adjacent TEC. Potential impacts from the proposal to surface runoff and groundwater access (eg mounding) including any potential hydrological impacts to the TEC are not adequately discussed in the referral documents.
2. Water quality: The referral states that there will be no water quality impacts. URBAQUA 2018 (section 4.3.1 page 20) states that recharged water will comply with the water quality criteria of the ANZECC Fresh and Marine Water Quality Guidelines. If compliance with these guidelines will address the chemical dosing agents applied that could negatively impact Flora and Vegetation, (such as chlorine and anti-algae chemicals), then impacts to adjacent environment (CCW and TEC) are likely to be managed.
3. Invasive species: PGV Environment (2018, page i) states the proposal will result in “A net increase in native vegetation cover through landscaping throughout the Facility that is sympathetic to the natural surrounds”, the report should explicitly state the local native species will be used. It is also unclear if the proposed mitigation measures described will be undertaken, and to what extent: “The Paperbark/Flooded Gum wetland area north of Atwell House would benefit from weed removal and planting of native species to improve upon the current quality of vegetation and values” (PGV 2018, page 14). Given the potential significance of the adjacent vegetation it is important that no weed species are introduced as part of landscaping or planting efforts, so weed monitoring and management should be described.

Are there any additional mitigation measures that the proponent could undertake to manage impacts flora and fauna values associated with the Swan River?

The impacts to Flora and Vegetation from changed hydrological regimes will likely be addressed through the proposal’s Construction-Water Management Plan (CWMP, URBAQUA 2018). This plan details the management of hydrological regimes and compliance with ANZECC Fresh and Marine Water Quality Guidelines, including both quantity and quality of

recharge water that could impact on the TEC, which will also be expected to be addressed in the licence required under the RIWI Act for discharge to ground. The proponent should also clarify the status of the adjacent vegetation that may be a TEC, and management of any potential impacts required.

However, it is recommended that monitoring of water quality, water quantity and adjacent native vegetation and contingency measures to address potential impacts, should be conditions of approval.

EPA FACTOR: TERRESTRIAL FAUNA

Objective: To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.

There are unlikely to be significant impacts to terrestrial fauna, and the mitigation measures are likely to manage direct impacts. Responses to the direct questions of the advice requested are provided below:

Is the finding of the waterbird survey accurate, in that the Swan River habitat opposite the proposal area (Zone 5) does not typically host habitat for migratory water birds?

Yes. Waterbirds and migratory wading birds are more commonly recorded in the sandflat and mudflat habitat (Zone 1, 2, 3, and 4).

Based on the referral information stating that there will be no expected Swan River water quality impacts, and less noise and light impacts, is it expected that construction and operation of the proposal would impact on Swan River fauna habitat?

No additional noise and light impacts are expected from the proposal as the location has been used as a sports field (with night lighting) and is adjacent to a major road with high vehicular traffic for over 60 years.

Are there any additional mitigation measures that the proponent could undertake to manage impacts flora and fauna values associated with the Swan River?

The impacts to Terrestrial Fauna, and the mitigation measures, are likely to be addressed through the proposal's management of Terrestrial Environmental Quality, Inland Waters Environmental Quality and Hydrological Processes. Provided these factors can be appropriately managed, the impacts to Terrestrial Fauna are subsequently likely to be managed.

REFERENCES

Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) (2013). Conservation Advice for SUBTROPICAL AND TEMPERATE COASTAL SALTMARSH. Canberra: Department of Sustainability, Environment, Water, Population and Communities. <http://www.environment.gov.au/biodiversity/threatened/communities/pubs/118-conservation-advice.pdf> (Accessed 2/5/2018)

PGV Environmental (2018) Tompkins Park Water Park Project Environmental Assessment. Report No 2017-326. Unpublished report for URBNSURF (Perth) Pty Ltd, January 2018.

Urbaqua (2018) Construction-Water Management Plan – URBNSURF Perth. Unpublished report for URBNSURF (Perth) Pty Ltd, April 2018.