

Kent St Sand Pit Site Investigations Outcomes Summary

Flora and Fauna Survey

The Administration commissioned a flora and fauna survey of the site over June and July 2021.

Fauna

The survey found that:

- The majority of the site (93.98%) supports highly disturbed parkland habitat which provides limited habitat value to native fauna and is likely to primarily be used by common and widespread native and non-native fauna with non-specific habitat requirements.
- The highest fauna habitat value in the site is associated with the native bushland habitat which occurs over 6.02% of the site.
- A total of 14 native fauna species were recorded within the site, including two threatened fauna species: *Calyptorhynchus latirostris* (Carnaby's cockatoo) and *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo).
- It is possible that a further six conservation significant species not recorded during the field survey may occur within the site. Pacific swift and peregrine falcon may occur occasionally for short periods. Swan Coastal Plain shield-backed trapdoor spider, quenda, Perth slider and black-striped snake may occasionally occur within the site due to it being adjacent to and part of a larger patch of native bushland (Kensington Bushland).
- Rainbow bee-eaters, which are listed as marine under the EPBC Act, reportedly occur within and utilise the batters along the northern boundary of the site for nesting (Emerge Associates 2020). The species occurs in south-western Australia from approximately September to April and breeding occurs between November and January. As the survey was undertaken outside of these time frames, the use of the site by this species could not be confirmed. However, the site provides suitable foraging and breeding habitat for this species.

Flora

- A total of 31 native and 28 non-native (weed) species were recorded in the site.
- Three individuals of the priority 4 flora species, *Dodonaea hackettiana*, were recorded in the south-western portion of the site.
- No threatened flora species were recorded within the site.
- No threatened or other priority flora species are considered likely to occur in the site due to lack of suitable habitat.
- The vegetation within the site was classified into the following two plant communities:
 - o Mixed shrubland which occurs on the perimeter of the site and extends over 0.26 ha. This community was mapped as being in 'degraded' condition.
 - o Non-native which occurs across the remainder of the site and extends over 4.06 ha. This community was mapped as being in 'completely degraded' condition.
 - The mixed shrubland vegetation is part of a larger patch of the 'banksia woodlands of the Swan Coastal Plain' threatened ecological community

(TEC). This TEC is listed as 'endangered' under the Environment Protection and Biodiversity Conservation Act 1999.

- The mixed shrubland vegetation also represents the 'banksia woodlands of the Swan Coastal Plain' priority ecological community (PEC).
- The mixed shrubland plant community contributes to a larger patch of native vegetation that provides habitat for native fauna species including some of conservation significance.

With respect to the proposed future use of the site, Emerge has indicated that the main item to be mindful of is the few plants of the priority flora species *Dodonaea hackettiana* that were found in part of the site near Baron-Hay Court. It is important that said area of the site is retained, and that these plants are not impacted during works.

Similarly, the threatened ecological community mixed shrubland which occurs over the perimeter of the site must be retained and enhanced through restoration and revegetation works.

The provision of enhanced habitat for the fauna that traverses the Sand Pit and greater Jirdarup Bushland Precinct should also be a string focus for the area. As such, the revegetation efforts should comprise species of a similar composition to that found within the adjacent Kensington Bushland.

Geotechnical Survey

The Administration commissioned a geotechnical survey to:

- Review of the site to identify potential issues that may affect the proposed works, to determine if the proposed works are feasible.
- Recommend appropriate site preparation procedures;
- Provide recommendations for additional geotechnical or environmental investigation works required for the site.

Findings from consultants:

Based on the findings of the study, we consider it unlikely that soil within the site presents a risk to human health or the environment in context of the current or proposed land use.

Based on our interview with the excavator operator, we consider it likely that the majority of the uncontrolled fill comprising building rubble originated from the road project demolition approximately 30 years ago. As such, it appears that ACM is not widely distributed throughout the uncontrolled fill. we therefore consider it likely that the site can be recontoured as part of the proposed development plan with largely site-derived material.

Based on the findings of this study, we recommend the following:

- *that an unexpected finds protocol be developed if the development works proceed; and*
- *at the completion of the development works, a systematic site walkover is conducted to ensure that there is no visible asbestos on the surface of the site in accordance with DoH guidelines.*

Mains Water Connection

Water Corporation informed the Town that there is a possibility of a mains water connection (e.g. for irrigation or drinking fountains) on the corner of Kent Street and Etwell Street.

If desired, the Town simply needs to apply for a service connection.

If the site were to connect to mains then the revegetated areas could be irrigated through a temporary irrigation system, such as during the first few two-three years of plant establishment.

Stormwater

Stormwater drains from Kent Street and Etwell Street flow into a Water Corporation compensation basin located in the southeast corner of the site and water from Baron Hay Court flows into a basin in the southwest section of the site.

It is anticipated that these compensation basins would stay on site, with the southeast corner compensation basin potentially being planted with Forest Vegetation that can be seasonally inundated and assist with nutrient removal from the incoming stormwater.

The majority of the remaining site is covered with sand, which will readily allow infiltration.

The stormwater capacity and infiltration of the site has historically not been a problem for the Town, and it is anticipated that any proposed works on site will not negatively impact on this infiltration, nor be negatively be impacted by said stormwater.

Groundwater Capacity

Previous site investigation revealed that the site is underlain by the unconfined superficial aquifer that extends to a depth of approximately 32.5m below ground level.

Based on information presented within the Department of Water website, groundwater is expected to be approximately 7.5 metres below ground level.

Given that the works on site will not be dug down more than one metre, the Town does not consider that groundwater will have an adverse effect on the proposed works.

The contamination status of the site excludes water from being drawn from the superficial aquifer below.