Attachment C: Section 3.2.1.

3.2.1. Describe the flora and fauna within the affected area and attach any investigation of surveys if applicable.

Numerous habitat assessments were conducted across the Project Area by ELA Ecologists in February, July and October 2023. These habitat assessments included marking up of Hollow-bearing Trees (HBTs), Koala Food Trees (KFTs), aquatic habitat, Flying Fox camps and any other fauna or flora habitat features. Within the Project Area 13 HBTs were recorded and 314 KFTs, of these habitat features six HBTs and 68 KFTs are located within the Disturbance Footprint. No Flying Fox camps were recorded within or surrounding the Project Area. The results of these surveys is provided in Attachment 'Att A_Figures', Figure 10, page 11. The habitat assessment found that there is potential for fauna and flora species listed under the EPBC Act to occur within the Disturbance Footprint due to the presence of suitable habitat in the form of remnant vegetation comprising HBTs, KFTs and other foraging resources. Based on the habitat assessment, a Likelihood of Occurrence Assessment was undertaken on EPBC Act listed species and ecological communities. The Likelihood of Occurrence Assessment is provided in Attachment 'Att D_Likelihood of occurrence assessment'. The preliminary habitat surveys and likelihood of occurrence assessment identified potential habitat for the following EPBC Act listed species:

- Black-faced Monarch (Monarcha melanopsis)
- Fork-tailed Swift (Apus pacificus)
- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Koala (Phascolarctos cinereus)
- Latham's Snipe (Gallinago hardwickii)
- Pacific Golden Plover (*Pluvialis fulva*)
- Rufous Fantail (*Rhipidura rufifrons*)
- South-eastern Glossy Black-cockatoo (Calyptorhynchus lathami lathami)
- Swift Parrot (Lathamus discolor)
- White-throated Needletail (Hirundapus caudacutus)
- Asperula asthenes (Trailing Woodruff)
- Melaleuca biconvexa (Biconvex Paperbark)

Based on the habitat values identified during preliminary surveys and the EPBC Act listed species considered to have potential to occur within the Disturbance Footprint, the following targeted flora and fauna surveys have been undertaken:

Targeted flora surveys (October 2023 – November 2024)

Targeted flora surveys were undertaken by ELA Ecologists across Spring 2023, Summer 2024, Winter 2024 and Spring 2024. Targeted flora surveys involved undertaking 10 m parallel traverses across the entirety of the Disturbance Footprint. Targeted flora survey effort is demonstrated in Attachment 'Att A_Figures', Figure 11, page 12. No threatened flora species were detected within the Disturbance Footprint during targeted flora surveys. *Asperula asthenes* (Trailing Woodruff) was recorded opportunistically outside the Project Area in the riparian vegetation along Partridge Creek. *Asperula asthenes* is listed as Vulnerable under both the EPBC Act and BC Act. *Melaleuca biconvexa* (Biconvex Paperbark) was also opportunistically identified outside the Disturbance Footprint in the riparian vegetation along Partridge Creek. *Melaleuca biconvexa* is listed as Vulnerable under both the EPBC Act

and BC Act. The locations of threatened species detections is provided in Attachment 'Att A_Figures', Figure 14, page 15.

Targeted amphibian surveys (October 2023 – November 2024)

Targeted aural visual surveys were conducted within freshwater wetlands and dams within the Disturbance Footprint. Between October 2023, February 2024 and November 2024 twelve aural visual surveys were conducted by two ELA Ecologists. Aural visual surveys involved spotlighting along suitable habitat interspersed with periods of quiet listening. Targeted amphibian survey effort is demonstrated in Attachment 'Att A_Figures', Figure 12, page 13. No threatened amphibian species were detected within the Disturbance Footprint during targeted survey.

Targeted microbat survey (October 2023 and January 2024)

Preliminary habitat surveys across the Project Area did not identify any caves, clifflines or old mine shafts that could be used as roosting habitat for the Large-eared Pied Bat (*Chalinolobus dwyeri*). Analysis of available cliffline mapping and aerial imagery within 2 km of the Project Area did not identify any cliffline habitat. Targeted microbat survey involved deployment of six ultrasonic detectors (Songmeter Mini Bat) for a period of four nights in October 2023. Harp trapping was also undertaken by ELA Ecologists in January 2024. Four harp traps were deployed for a period of four nights in suitable microbat flyways within the Disturbance Footprint. Targeted microbat survey effort is demonstrated in Attachment 'Att A_Figures', Figure 12, page 13.

No threatened microbats were detected during harp trapping survey. Analysis of ultrasonic data did not detect any EPBC Act listed microbats. However, four BC Act listed microbats were detected with confidence:

- Eastern Coastal Free-tailed Bat (Micronomus norfolkensis) Vulnerable (BC Act)
- Little Bent-wing Bat (Miniopterus australis) Vulnerable (BC Act)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) Vulnerable (BC Act)
- Yellow-bellied Sheathtail-bat (Saccolaimus flaviventris) Vulnerable (BC Act)

One Southern Myotis (*Myotis macropus*) was also detected roosting beneath the bridge over Partridge Creek, just outside the Project Area. Southern Myotis are listed as Vulnerable under the BC Act.

Targeted avifauna surveys (October 2023 – June 2024)

Targeted survey for avifauna was undertaken during Spring 2023, Summer 2024 and Winter 2024 across the Disturbance Footprint. Each bird survey is conducted by two observers over a 5 or 15 minute period where birds within a 2 ha search area are observed. Surveys are generally undertaken during the early morning or late afternoon and are not undertaken during rainfall or heavy wind.

Threatened avifauna are also opportunistically observed by Ecologists while performing targeted flora and fauna surveys across the Disturbance Footprint. A total of 23 bird surveys equating to 295 minutes of survey have been conducted across the Disturbance Footprint. Targeted avifauna survey effort is demonstrated in Attachment 'Att A_Figures', Figure 12, page 13.

Latham's Snipe (*Gallinago hardwickii*) were opportunistically observed on three occasions when flushed from the grass within the modified drainage line just outside the eastern edge of the College Drive

portion of the Disturbance Footprint. Latham's Snipe is listed as Vulnerable, Marine and Migratory under the EPBC Act. Up to eight individuals were observed on each occasion.

Three White-throated Needletails (*Hirundapus caudacutus*) were observed aerially foraging high above the canopy in the Capital Drive portion of the Disturbance Footprint. The White-throated Needletail is listed as a Migratory species under the EPBC Act.

The locations of threatened species are provided in Attachment 'Att A_Figures', Figure 14, page 15. No other EPBC Act listed or BC Act listed bird species have been detected within the Disturbance Footprint.

Targeted terrestrial and arboreal mammal survey (October 2023 – June 2024)

Arboreal and terrestrial mammal surveys involved baited Infrared (IR) remote cameras, spotlighting, pitfall trapping and Koala Spot Assessment Technique (SAT) across the Project Area. Targeted mammal survey effort is demonstrated in Attachment 'Att A_Figures', Figure 13, page 14.

Targeted survey using IR remote cameras were undertaken in February and March 2024. A total of 24 remote cameras were deployed. Of these, eight were set to target terrestrial mammals and 16 set to target arboreal mammals. Cameras were deployed for a month (note: four terrestrial cameras in the Bestglen Place portion of the Disturbance Footprint were collected after two weeks due to cattle reentry) with a bait change and SD card/battery check two weeks after initial deployment. A total of 24 deployments across 630 trap nights (456 arboreal trap nights and 174 terrestrial trap nights) were undertaken across the Project Area.

Pitfall trapping survey was used to targeted small terrestrial mammals within the Project Area. Pitfall trap surveys were undertaken by two ELA Ecologists in February 2024. Ten pitfall trap lines were deployed for 3 or 4 nights, equating to a total of 37 trap nights. Pitfall traps consisted of two-20 L buckets dug into the ground and connected by a 10 m length of plastic drift fence.

Spotlighting was conducted over nine nights in October 2023, February 2024 and June 2024. Spotlighting survey is conducted by two Ecologists and involves traversing across the Project Area using a handheld spotlight to pick up fauna eyeshine. Across the Project Area 19.2 km of spotlighting has been undertaken, equating to 740 person minutes of survey.

Koala SAT surveys were undertaken by two Ecologists in January and June 2024. Five Koala SATs were undertaken across the Project Area. Koala SATs were evenly dispersed across the Project Area and the majority of intact vegetation was surveyed. The locations and tracks collected during all SAT surveys is provided in Attachment 'Att A_Figures', Figure 13, page 14.

No EPBC Act or BC Act listed terrestrial or arboreal mammal species were detected within the Disturbance Footprint. Two Grey-headed Flying-fox (*Pteropus poliocephalus*) were opportunistically observed foraging in flowering *Eucalypts* in the Sovereign Place portion of the Disturbance Footprint during spotlighting survey. One Grey-headed Flying-fox was also heard foraging high in the canopy of the Bestglen Place portion of the Disturbance Footprint during call playback survey. The locations of threatened species are provided in Attachment 'Att A_Figures', Figure 14, page 15.

In summary, the following EPBC Act listed species have been detected in or within close proximity to the Disturbance Footprint during field survey:

• Asperula asthenes (Trailing Woodruff)

- Melaleuca biconvexa (Biconvex Paperbark)
- Grey-headed Flying Fox (*Pteropus poliocephalus*)
- Latham's Snipe (Gallinago hardwickii)
- White-throated Needletail (*Hirundapus caudacutus*)