



Grey-headed Flying-fox (*Pteropus Poliocephalus*)

## Potential impacts to existing environment

Expert ecological surveys confirmed there are no threatened ecological communities or nationally threatened flora occurring within the project area.

Any potential state threatened flora, such as remnant Pink Gum and Flinders Ranges Wattle have also been considered but neither were recorded during site surveys so no impacts are expected.

The nationally threatened White-throated Needletail and the Grey-headed Flying-fox have the potential to be present, as do the state threatened Spotless Crake and Common Brushtail Possum.

Regarding the Claret Ash trees, the project is looking to minimise impacts to ensure as many trees are retained as possible. However, there is potential that some trees may still be impacted, primarily on the northern side of Anzac Highway between Selby Street and South Road.

If there is removal of ecological or amenity values, the project would seek to offset impacts with trees and plants planted on project land and sites in proximity to the project.

## Ecology

Ecology includes both flora (plants and vegetation) and fauna (animals) and relates to how they interact with their surrounding environment.

Some negative impacts cannot be avoided, however the T2D Project has sought to maximise opportunities and minimise impacts to ecology throughout each phase.

Comprehensive ecological surveys have already been completed to inform early works and design in minimising impact on the natural environment.

## Existing environment

While there are few ecological features remaining along the highly modified existing South Road corridor, there remain some scattered patches of high value vegetation, including significant, regulated and amenity trees, other amenity landscape plantings and native vegetation in isolated pockets.

For instance, the section of the River Torrens / Karrawirra Parri that is within the project area contains flora in good condition providing high amenity value for the community and a habitat corridor for fauna. In particular, flora along the edge of the river and the overstorey is substantially intact.

The avenue of Claret Ash trees planted along Anzac Highway in the 1930s is classified as a Roadside Significant Site. This avenue of trees has both environmental and cultural significance.

There are no substantially intact remnant habitats evident in the road corridor.

## Alternatives, mitigation and opportunities

To ensure there is minimal impact to the existing ecology of the project area, the planning and design process has been guided by the following principles in order of preference:

- **Avoidance:** to avoid clearance of vegetation wherever possible
- **Minimisation:** if clearance cannot be avoided, measures should be taken to minimise the duration, intensity and extent of impacts
- **Rehabilitation or restoration:** measures should be taken to rehabilitate ecosystems that have been degraded, and to restore ecosystems impacted by clearance
- **Offset:** any adverse impact on vegetation or ecology that cannot be avoided or further minimised is to be offset in accordance with the Department's Vegetation Impact Assessment Guideline.

Avoidance is the most effective method to minimise ecological impacts and retain existing native vegetation, regulated and significant trees, and high-value flora. This is the main method being achieved for this project through the use of tunnels for the majority of the proposed alignment.

The plan to elevate the road structure to span the River Torrens / Karrawirra Parri will also minimise the effects of construction to the high-value vegetation area within the River Torrens / Karrawirra Parri corridor.

When clearance cannot be avoided, it will be minimised during design. The ecological assessments provided data for the design phase (using geographic information systems) and identified opportunities to avoid ecological impacts.

Further, where trees and vegetation need to be cleared to facilitate the project, a strategy will be developed demonstrating how and where they will be replaced. To enhance biodiversity and climate resilience the project has also committed to a minimum 20% increase in tree canopy cover.

This strategy will be implemented immediately following the completion of construction to restore the landscape amenity and maximise ecological benefit.

Rehabilitation or restoration of existing high-value flora areas, public spaces, gardens and reserves within and adjacent to the project area, will ensure the best opportunity to improve biodiversity.

Planting fauna specific native tree and shrub species as offsets will provide preferred habitat, minimising the ecological effects of the project.

## Approvals, permits and authorisations

Required:

- the Department's Environment and Heritage Technical Manual Attachment 4B Vegetation Impact Assessment Guideline approval requirements.

Potentially required:

- *Native Vegetation Act 1991.* Only for flora within the River Torrens / Karrawirra Parri corridor.
- *Planning, Development and Infrastructure Act 2016.* Only for regulated and significant trees beyond land under the care, control and management of the Commissioner of Highways.

Scan the QR code to view the suite of assessments included in the PAR or visit [T2D.sa.gov.au/PAR](https://T2D.sa.gov.au/PAR).

