

Public Environment Report

Chapter 11

Offsets

September 2019



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This chapter responds to Section 2.7 of the PER Guidelines. It explains how North East Link would compensate for residual impacts to Matters of National Environmental Significance (MNES) or environmental values on Commonwealth land.

11.1 Background

The term 'environmental offsets' refers to measures that compensate for the residual adverse impacts of an action on the environment. Offsets provide environmental benefits to counterbalance the impacts that remain after avoidance and mitigation measures are implemented. These remaining, unavoidable impacts are termed 'residual impacts'.

As indicated in Section 5.2 of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) *Environmental Offsets Policy*, offsets are not required where the residual impacts of a proposed action are not thought to be significant, or could be reasonably avoided or mitigated.

For offsets to be considered suitable, they must meet the following offset principles:

- Deliver an overall conservation outcome that improves or maintains the viability of the aspect of the environment that is protected by national environment law and affected by the proposed action
- Be built around direct offsets but may include other compensatory measures
- Be in proportion to the level of statutory protection that applies to the protected matter
- Be of a size and scale proportionate to the residual impacts on the protected matter
- Effectively account for and manage the risks of the offset not succeeding
- Be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programs (this does not preclude the recognition of state or territory offsets that may be suitable as offsets under the EPBC Act for the same action; as per Section 7.6 of the Environmental Offsets Policy)
- Be efficient, effective, timely, transparent, scientifically robust and reasonable
- Have transparent governance arrangements including being able to be readily measured, monitored, audited and enforced.

11.2 Commonwealth offsets

As discussed in Chapters 7 to 10 of this PER, avoidance and mitigation measures have been developed to manage potential impacts associated with the action. North East Link would therefore be unlikely to result in significant residual impacts to MNES or environmental values on Commonwealth land that require offsetting under the EPBC Act.

11.2.1 Matted Flax-lily

This includes Matted Flax-lily *Dianella amoena*, where salvage and translocation has been proposed to prevent the loss of individual plants that otherwise would be affected by North East Link. The plan for the salvage and translocation of Matted Flax-lily is described in Chapter 7 – Impacts on listed threatened species and ecological communities, and on migratory species. The plan would involve plant subdivision (cloning) of those plants requiring salvage and managing them in a nursery before translocating them to suitable recipient sites that would support the success of the species. A copy of the Salvage and Translocation Plan is provided as Appendix F to PER Technical Appendix A – Flora and fauna technical report.

Therefore, offsets under the EPBC Act for Matted Flax-lily are not proposed.

11.2.2 Studley Park Gum

As discussed in Chapter 9 – Impacts on the whole of the environment on Commonwealth land, 44 Studley Park Gum are expected to be directly lost from inside the project boundary on Commonwealth land due to North East Link. A further three Studley Park Gum large trees have the potential to be lost from outside the project boundary on Commonwealth land due to groundwater drawdown during operation in the long-term.

To mitigate potential impacts of groundwater drawdown on Studley Park Gums at Simpson Barracks, a Studley Park Gum Groundwater Dependent Ecosystem Monitoring and Mitigation Strategy would be implemented as part of the project. However, as this mitigation would not avoid or mitigate the predicted loss of 47 Studley Park Gum individuals, it is expected that the residual impact on plants on Commonwealth land would be significant. In accordance with the EPBC Act *Environmental Offsets Policy*, this would trigger a requirement for offsets for impacts to Studley Park Gum on Commonwealth land.

Under the *EPBC Act Environmental Offsets Policy*, offsets are defined as measures that compensate for the residual impacts of an action. Offsets can comprise a combination of direct offsets and other compensatory measures. An offset may include:

- Improving existing habitat for the protected matter
- Creating new habitat for the protected matter
- Reducing threats to the protected matter
- Averting the loss of a protected matter or its habitat that is under threat.

By its very nature, the known population of Studley Park Gum is small both in distribution and numbers of individuals, given it is a rare fertile hybrid of two commonly occurring species (the River Red Gum and Swamp Gum).

Because of its inherently small population, determining a direct offset that improves and secures an existing population which accounts for at least 90 per cent of the offset requirements is not possible. There is also a lack of existing known habitat. According to the offsets policy, deviation from the 90 per cent direct offset requirement is able to be considered where scientific uncertainty is so high that it isn't possible to determine a direct offset that is likely to benefit the protected matter.

Studley Park Gum itself is not a protected matter however the environment on Commonwealth land is a protected matter. Therefore, instead of delivering direct offsets that secures and manages an existing population or habitat for the Studley Park Gum, NELP proposes to contribute to the conservation of Studley Park Gum by establishing new habitat through the implementation of the Studley Park Gum Management Framework (the Framework) (see PER Technical Appendix A – Flora and fauna). This approach is expected to result in a viable outcome noting that the creation of new habitat for a protected matter is a type of direct offset under the *EPBC Act Environmental Offsets Policy*.

The Framework has been developed as the proposed offset measure for the impacts to Studley Park Gum on Commonwealth land. The Framework commits to the following measures:

- Developing and implementing a 'seed collection and propagation plan', which provides detailed methods for the collection, storage and propagation of Studley Park Gum seeds
- Identifying a recipient site with appropriate conditions to enable establishment of a self-sustaining Studley Park Gum population
- Planting 288 Studley Park Gum saplings at the recipient site to achieve the establishment goal of a minimum of 98 Studley Park Gum plants after three years
- Developing and implementing a management plan for the recipient site, which includes detailed site-specific actions.

It is acknowledged that this approach has not previously been proposed for the taxon. Given this, uncertainties exist around the potential success (risk of failure) of the Framework. These uncertainties have been considered in the development of the Framework and the responses documented below:

- There is the potential that an insufficient volume of Studley Park Gum seed is collected.

In response the Seed Collection and Propagation Plan (see PER Technical Appendix A – Flora and fauna) identifies five ‘collections’ of Studley Park Gum seed. At each collection numerous individual trees would be targeted and fruit and seed taken (two collections have been completed as at August 2019).

- There is the potential that the collected seed is not viable.

The Royal Botanic Gardens of Victoria have been engaged to store and test seed viability through germination testing.

- The potential that saplings display morphological characteristics more closely aligned with one parent species.

As part of the propagation process the horticulturalist would observe the morphology being expressed by the seedlings. Those plants that are clearly showing a strong tendency to the morphological characteristics of either River Red Gum or Swamp Gum would be excluded from the numbers of trees considered to be Studley Park Gum.

- Failure to reach the 2:1 target.

The Framework has been conservative and assumes annual death of up to 30 per cent (year on year) of planted Studley Park Gums over the three years of the Framework. In reality, with appropriate planting, maintenance and management it is reasonable to assume that mortality would not be so high and that overall at least 50 per cent (144) of planted Studley Park Gums survive past three years.

- Contingency planning.

There is still the potential that the Framework fails to meet its goal of the establishment of 98 Studley Park Gums displaying strong morphological affinities with other Studley Park Gums at Simpson Barracks. The Framework documents evaluation and contingency measures to be implemented if the Framework looks likely to fail.

It is proposed that once a recipient site(s) is selected, a more detailed Studley Park Gum Management Plan would be prepared and approved by DELWP.

In addition to the above, at the State level native vegetation offsets would be provided based on the Victorian Guidelines (DELWP 2017a) to offset for the removal of native vegetation (which Studley Park Gum trees form part of) directly impacted by the project, and three Studley Park Gum trees expected to experience premature mortality due to long term groundwater drawdown.

Implementing the Studley Park Gum Management Framework (see PER Technical Appendix A – Flora and fauna) and State offsets is in line with the *EPBC Act Environmental Offsets Policy* and commensurate with the conservation status of the species.

11.3 State offsets

It is acknowledged that under Victorian legislation, offsetting is required to compensate for the loss of native vegetation (containing large trees) and scattered native trees in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP, 2017a). The PER Guidelines specify that ‘Offsets required for residual impacts to state listed matters occurring on Commonwealth land can be offset using state offsets policies but must also meet the principles of the EPBC Act *Environmental Offsets policy*’. North East Link Project (NELP) is committed to offsetting the loss of all native vegetation in accordance with the state requirements, including native vegetation on Commonwealth land. This approach has been discussed with the Australian Government’s Department of Energy and Environment (DoEE) and agreed to in principle in October 2018.

As discussed in Chapter 9 – Impacts on the whole of the environment on Commonwealth land, approximately 10.98 hectares of Plains Grassy Woodland are expected to be lost from Commonwealth land due to North East Link. These losses would be offset along with the rest of the vegetation lost due to the action (that is outside Commonwealth land) under the State process administered by Victoria’s Department of Environment, Land, Water and Planning (DELWP).

It should be noted that NELP conservatively considered all native vegetation within the project boundary would be lost due to the action, to determine the maximum possible offsetting required. However, there would be requirements to minimise the amount of native vegetation lost through the detailed design development of North East Link, and the overall impact is expected to reduce.

The expected project-wide vegetation removal was analysed through DELWP’s EnSym Native Vegetation Removal (NVR) tool to determine the project offset requirements. This tool assesses whether the removal of vegetation (including scattered trees) has the potential to affect significant habitat of threatened species and uses mapped habitat to determine the offset requirements that compensate for vegetation loss due to North East Link. An updated NVR report was received from DELWP in June 2019 and the results are summarised below.

- **General offset amount:** 9.384 general habitat units:
 - Vicinity – Port Philip and Westernport Catchment Management Authority (CMA) or Banyule City, Boroondara City, Manningham City, Nillumbik Shire, Whitehorse City Council
 - Minimum strategic biodiversity value: 0.164
 - Large trees: 122 large trees
- **Species offset amount:**
 - 22.945 species units of habitat for Grey-headed Flying-fox
 - Large trees: 57 trees
- **Total number of large trees that the offset must protect:** 179.

The ability to achieve the offset requirements is subject to the State offsetting process administered by DELWP. The purpose of the offsets is to secure vegetation that is equivalent to the native vegetation being removed or assumed lost, and in this way, make a contribution to Victoria's biodiversity.