ACT Government
City and Environment

ENVIRONMENTAL SIGNIFICANCE OPINION - Mulanggari Artificial Floating Island (ESO 202600003)

In accordance with section 140 (4) of the *Planning Act 2023* (the Act), I provide the following environmental significance opinion:

APPLICANT

ACT Biosecurity, as represented by Mr Joseph Heys, Biosecurity Coordinator.

APPLICATION and DEVELOPMENT PROPOSAL

The applicant has applied under section 140 (4) of the Act to the Conservator of Flora and Fauna for an environmental significance opinion to the effect that the development proposal set out in the submission is not likely to have a significant adverse environmental impact (the application).

The development proposal is for installation of an artificial floating wetland island in Mulanggari Grasslands Nature Reserve to provide refuge for at risk or high priority bird species as described in the submission.

LOCATION

Block 611 Section 0 Gungahlin District

MATTERS TO WHICH THIS OPINION APPLIES

This opinion applies only to the development proposal as described in the application.

OPINION

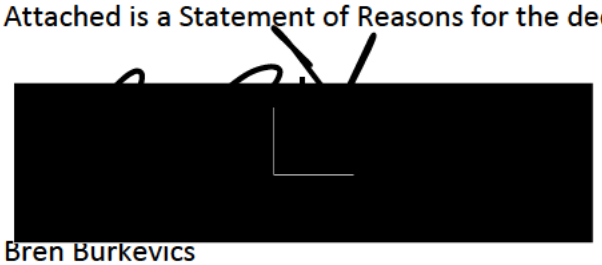
Provided the works are undertaken in a manner consistent with the following conditions in addition to the mitigation measures contained in the supporting application for an ESO, they are unlikely to cause a significant adverse environmental impact.

This opinion is granted subject to the following conditions made under s140 (4)(b) of the Act:

1. Conditions of approval including mitigation measures as stated in the application.
2. Access to the site must be granted to Conservation Officers if a random compliance inspection is requested by the Conservator of Flora and Fauna.
3. The proponent is to submit a Works Plan to PCS for endorsement prior to works commencement. The Plan should further outline operational details regarding

management responsibilities (including end of life), access routes and procedures, etc.

Attached is a Statement of Reasons for the decision.



Bren Burkevics
Conservator of Flora and Fauna

5 May 2026

STATEMENT OF REASONS
REASONS FOR THE DECISION

The proposed development is a proposal mentioned in Schedule 1 of the *Planning (General) Regulation 2023* – requiring environmental impact statement, being:

Part 1.2, item 18 - proposal for development in a reserve, unless the proposal is for minor public works to be carried out by or for the Territory in accordance with a minor public works code approved by the conservator of flora and fauna under the Nature Conservation Act 2014*, section 318A;*

The proposed works are within Mulanggari Grasslands Nature Reserve.

The proponent is seeking an environmental significance opinion to remove the requirement for an environmental impact statement on the grounds that the proposal is not likely to have a significant adverse environmental impact, and has applied to the Conservator of Flora and Fauna for an opinion to that effect.

Meaning of *significant* adverse environmental impact

An adverse environmental impact is ***significant*** if—

(a) the environmental function, system, value or entity that might be adversely impacted by a proposed development is significant; or
(b) the cumulative or incremental effect of a proposed development might contribute to a substantial adverse impact on an environmental function, system, value or entity.

In deciding whether an adverse environmental impact is ***significant***, the following matters must be taken into account:

(a) the kind, size, frequency, intensity, scope and length of time of the impact;
(b) the sensitivity, resilience and rarity of the environmental function, system, value or entity likely to be affected.

In deciding whether a development proposal is likely to have a significant adverse environmental impact it does not matter whether the adverse environmental impact is likely to occur on the site of the development or elsewhere.

It has been determined that the proposal is unlikely to have a significant environmental impact, based on the documentation submitted, known values of the site, and provided the works and ongoing management are carried out in accordance with the conditions attached to this ESO.

Project description

The development proposal is for installation of an artificial floating wetland island in Mulanggari Grasslands Nature Reserve to provide refuge for at risk or high priority bird species. This is to create greater resilience in the population and the ability for the species to

recover post an incursion of H5N1 Avian Influenza, while have refuge from predation and human interaction.

The floating island is based on a successful design deployed at Mulligans Flat. It has been designed to provide sanctuary for birds from terrestrial predators (e.g. foxes, dogs, cats), human disturbance and availability of additional habitat for roosting and nesting. This in turn will mitigate the transmission of H5 bird flu between waterbodies and different species, by reducing the risk of predation by terrestrial mammals, which can transmit H5N1.

The project will aim to prioritise native waterbird species that are expected to be highly susceptible to H5 bird flu. This includes several threatened and migratory species, such as:

- Latham's Snipe (*Gallinago Hardwickii*)
- Common Greenshank (*Tringa Nebularia*)
- Curlew Sandpiper (*Calidris Ferruginea*)
- Australian Painted Snipe (*Rostratula Australis*)
- Sharp-tailed Sandpiper (*Calidris Acuminata*)

The proposed floating island will be installed in a semi-permanent waterbody in the reserve. It will measure 3m wide x 3m long x 0.28m height. It will consist of plastic modular units constructed of a mix of polypropylene and high-density polyethylene which are UV and corrosion-resistant. Coconut coir is used as the growing substrate, with a planting density of 3-4 plants per square metre.

The island will be anchored to the bottom substrate of the waterbody at 3 points. Anchor points will be made from 2.4m heavy galvanised stock posts (star pickets) sunk to a depth of 2.2m, located above the waterline of the dam, and triangulated to limit floating island movement. A galvanised D-shackle will connect the post to 5mm (diameter) galvanised chain, which will subsequently be connected the floating island. The chain will be cut to a length that will ensure it remains suspended in the water.

Access to the site will be along the formed trails present within the reserve. Two 4WDs and a 2-axle trailer will be involved in the installation, all vehicles and tools which are brought into the site will be washed down prior to, and post accessing the reserve. Construction will occur offsite, with final assembly (anchor points and island deployment) occurring adjacent to the installation site.

Maintenance will include watering/weeding in the first 12 months, with access to the island via kayak/canoe or detaching the island from its anchor points and moving it to the shore. Minimum maintenance is expected in the medium term (1-4 years) following plant establishment. Longer term maintenance is currently unknown (the Mulligans Flat island is currently in its 3rd year and remains functional), but likely to include servicing of the anchoring system (for example replacement of anchor points at the water edge).

Based off the success of the Mulligans floating island, a conservative estimate lifespan of 5-7 years but expect the island to remain functional for up to 10 years.

Documentation Submitted

- Explanatory note regarding supporting documentation for the application for an Environmental Significance Opinion;
- Artificial floating island dimensions and design;
- Combined maps;
- Floating island and anchor point locations;
- Floating island design brochure;
- Further email correspondence with the proponent;
- Letter(s) of Authorisation
- Form 1M.

Natural conservation values present

Mulanggari Grasslands Nature Reserve is a 140ha reserve conserving a large remnant of critically endangered Natural Temperate Grassland and Box-gum Woodland, as well as providing important habitat for several threatened species, including one of the largest known populations of the vulnerable Striped Legless Lizard (*Delma Impar*).

The following species listed under the NC Act have been recorded / known to occur in the reserve:

- Perunga Grasshopper (*Perunga ochracea*)
- Hoary Sunray (*Leucochrysum albicans subsp. Tricolor*)
- Golden Sun Moth (*Synemon plana*)
- Striped Legless Lizard (*Delma Impar*)

The site consists of a waterbody approximately 0.8ha in area. Common native species such as Pondweed (*Potamogeton sp.),* Upright Water Milfoil *(Myriophyllum papillosum),* Common Rush *(Juncus usitatus)* as well as exotics including *Umbrella sedge (Cyperus eragrostis)* make up most of the wetland community.

Potentially Significant Environmental Impacts

While this ESO can be granted on the basis that the Environment Impact Statement significance triggers are not met (i.e. impacts to protected values not significant), the proposal may not bring about the desired benefits from providing refuge for at-risk wetland birds, notably Latham's Snipe, Common Greenshank, Curlew Sandpiper, Australian Painted Snipe, and Sharp-tailed Sandpiper.

While these species *may* use the floating island, there is insufficient evidence this refuge would have a meaningful ecological benefit, given:

- Most of the target threatened wetland birds (excluding Painted Snipe) do not breed in Australia, so any benefit will target foraging/roosting habitat.

- Painted Snipe, Curlew Sandpiper and Common Greenshank are uncommon visitors to the ACT, and have not been recorded within proximity to Mulanggari, so the likelihood of habitat use within this site is low.
- Latham's Snipe and Curlew Sandpiper do regularly migrate to the ACT, but most records are around the Jerrabomberra Wetlands area, which provides much larger and permanent habitat value.
- The size of the waterbody and the surrounding habitat may not provide suitable foraging/roosting habitat for these species, and may potentially encourage "less desirable" species, e.g. Straw Neck Ibis, Sea Gulls, etc.

The proposal also raises some potential ecological and operational risks including:

- Insufficient information regarding the waterbody, i.e. is it permanent or ephemeral? If permanent, how much does the water level drop during dry years? What is the water depth?
- Will the island be of sufficient distance from land during dry periods to still restrict cats/foxes accessing it?
- How will the islands favour the listed/target species rather than encouraging "less desirable" species e.g. Straw Neck Ibis, Sea Gulls, etc? Establishment of new colonies of such species may result in eutrophication from bird droppings of the waterbody.
- Potential impacts to protected grassland values from anchoring and access.
- End of life management for the islands – ensuring proper management responsibilities.
- Monitoring Plan – outline monitoring frequencies and methods.

The above concerns must be addressed in a Works Plan submitted to PCS for endorsement prior to works commencement.

This opinion is granted subject to the following conditions made under s140 (4)(b) of the Act:

1. Conditions of approval including mitigation measures as stated in the application.
2. Access to the site must be granted to Conservation Officers if a random compliance inspection is requested by the Conservator of Flora and Fauna.
3. The proponent is to submit a Works Plan to PCS for endorsement prior to works commencement. The Plan should further outline operational details regarding management responsibilities (including end of life), access routes and procedures, etc.

It has been determined that if the works are undertaken in a manner consistent with the above conditions attached to the ESO in addition to the mitigation measures contained in the supporting application for an ESO, they are unlikely to cause a significant adverse environmental impact.