Your ref: SSI-73368213
Our ref: DOC24/854886

Mr Kurtis Wathen
Senior Environmental Assessment Officer
Department of Planning, Housing, and Infrastructure

By email: kurtis.wathen@dpie.nsw.gov.au

Dear Mr Wathen

Thank you for your referral of the Environmental Impact Statement (**EIS**) for the proposed Stratford Pumped Hydro and Solar State Significant Infrastructure (SSI- 73368213) via the Major Projects Portal.

The NSW National Parks and Wildlife Service (**NPWS**) appreciates the opportunity to consider the project's proximity and likely impacts to lands reserved or acquired under the *National Parks and Wildlife Act 1974* (NPW Act). In accordance with the Secretary's Environmental Assessment Requirements (**SEARs**), as issued on 16 July 2024, an assessment of impacts on The Glen Nature Reserve (NR) and a consideration of the guidelines for *Developments adjacent to National Parks and Wildlife Service Lands* (DPIE-NPWS 2020) were required in the preparation of the EIS.

NPWS understands that the project involves an underground pumped hydro power station, upper and lower reservoirs, a solar photovoltaic energy generation facility (330MW) and associated ancillary infrastructure. NPWS is interested in the proposal as the upper reservoir is located 500 metres west of The Glen NR.

On review of the EIS, NPWS has identified potential direct and indirect impacts to The Glen NR. In summary, key issues are:

- noise and vibration
- ecological habitat fragmentation
- landscape amenity resulting from night lighting
- the suitability of water in the upper reservoir for future firefighting operations
- potential impacts of the upgrade to the existing 132kV Electricity Transmission Line.

These and other matters are discussed in detail in **Attachment A**.

If you have any further questions about these matters, please contact Mr Anthony Signor, Manager, Barrington Tops Area, on npws.barringtontops@environment.nsw.gov.au.

Yours sincerely

Kylie Yeend
Director, Hunter Central Coast Branch
NSW National Parks & Wildlife Service

28 October 2024

Attachment A – NPWS comments on Stratford Pumped Hydro and Solar SSI-73368213

On review of the EIS published on Stratford Pumped Hydro and Solar | Planning Portal – Department of Planning (nsw.gov.au), NPWS makes the following comments.

1. Noise and Vibration

NPWS has reviewed the EIS and Appendix J – Noise and Vibration Impact Assessment prepared by SLR, dated 16 July 2024 (**NVIA**).

The reports do not identify The Glen Nature Reserve as a sensitive receiver, nor does the assessment consider the maximum noise as recorded on The Glen Nature Reserve as NPWS land.

The *Outer Envelope Noise Contour dB(A) Map (Appendix C)* within the NVIA indicates construction noise contours for the project. The mapping suggests that land to the east of the disturbance boundary will be subject to construction noise ranging from 35dB(A) to 45dB(A). However, the map does not show the extent of the contours to the east, and whether these overlap the boundaries of The Glen Nature Reserve. Given the proximity of The Glen Nature Reserve to the disturbance footprint (500 m), NPWS consider that there may be construction noise impacts to this land.

The NVIA provides a *Blasting Impact Assessment (Section 8)* which recommends safe blasting distances from air blast and vibration for sensitive receivers. The NVIA acknowledges that blasting may be required within the upper reservoir, which is located 500m west of The Glen Nature Reserve. As noted above, the NVIA does not identify The Glen Nature Reserve as a sensitive receiver, and therefore does not consider potential air blasting and vibration impacts to the nature reserve. The EIS mentions that blasting management measures will be detailed within the Construction Environmental Management Plan (**CEMP**).

The EIS identifies the powerhouse as containing pumps / turbines that will be used to generate energy when water is released from the upper reservoir, and to pump water from the lower reservoir to the upper reservoir. The EIS and NVIA mention that these pumps / turbines are not expected to cause any significant noise emissions at the surface and acknowledge that the predicted noise model incorporates the proposed ventilation fan for this infrastructure.

Recommendations:

As part of the RTS, revise the NVIA and mitigation measures to:

1.1 Revise the *Outer Envelope Noise Contour dB(A) Map (Appendix C)* to identify the extent of construction (including blasting) and operational noise contours on The Glen Nature Reserve, including identification of the maximum noise predicted on NPWS land.

1.2 Apply a baseline noise limit criterion of 35 dB(A) to The Glen Nature Reserve to reflect its treatment as a sensitive receiver.

1.3 Acknowledge noise levels above 40 dB(A) have the potential to impact on wildlife occupying The Glen Nature Reserve. If exceedance occurs, impacts on biodiversity values of The Glen Nature Reserve will need to be assessed in more detail.

1.4 NPWS requests consultation in the preparation of the CEMP with regards to blast management measures via a Blast Management Plan to ensure impacts to NPWS estate and staff safety is managed accordingly during construction.

1.5 Provide an acoustic (noise) monitoring program to ensure stated noise levels are adhered to and effects on The Glen Nature Reserve are reported. If noise limits affecting NPWS estate exceed 40 dB(A) additional assessment and biodiversity monitoring is requested as part of the Biodiversity Management Plan.

2. Ecological habitat fragmentation

NPWS has reviewed the EIS and Appendix D – Biodiversity Development Assessment Report prepared by GHD, dated 13 September 2023 (**BDAR**).

The EIS acknowledges that the main residual terrestrial ecology impacts are associated with the clearing of native vegetation within the development footprint of the upper reservoir.

The endangered Craven grey box (*Eucalyptus largeana*) occurs within The Glen Nature Reserve[1]. The BDAR identifies the presence of *Eucalyptus largeana* in the development footprint of the upper reservoir and acknowledges that this area of native vegetation connects to The Glen Nature Reserve. The BDAR also acknowledges that this native forest vegetation maintains connectivity to Ghin-Doo-Ee National Park and the Myall River State Forest.

The BDAR highlights that removing vegetation, and the existing population of *Eucalyptus largeana* within the development footprint, may fragment remaining individuals from the wider population. NPWS acknowledges that the BDAR concludes that the impacts on habitat connectivity are unlikely to have significant residual impacts on any native species' life cycles.

Recommendations*:*

2.1 Habitat connectivity is considered and maintained to the greatest extent practicable supporting retained vegetation to sustain linkages for threatened species and native vegetation on The Glen Nature Reserve.

2.2 Prepare the Biodiversity Management Plan in consultation with NPWS to ensure it includes the recommended minimisation and mitigation measures identified within the *Section 12.5* of the BDAR (Appendix D) and ensures that biosecurity and hygiene protocols[2] are applied.

3. Light pollution

NPWS has reviewed the EIS and recognise that the 24-hour construction activities proposed (including tunnelling) will require lighting at the surface throughout the night.

Ancillary infrastructure will include general lighting facilities throughout the construction phase of the project, and safety lighting around permanent site offices during the operational phase.

The BDAR identifies that light pollution during both construction and operational phases may impact on ecological populations external to the site in areas such as The Glen Nature Reserve to the east of the development footprint.

Recommendations*:*

As part of the RTS:

3.1 Undertake additional assessment of potential night-time lighting impacts consistent with the Australian Standard AS4282:2023 *Control of the Obtrusive Effects of Outdoor Lighting*.

3.2 Consistent with AS4282:2023, use the National Light Pollution Guidelines for Wildlife[3] to ensure adequate design and consideration of the natural (biodiversity) values of The Glen Nature Reserve in the design of project lighting so that all light fittings are appropriately shielded, and lighting is directed downwards with no light directed above the horizontal plane.

[1] The Glen Nature Reserve – Statement of Management Intent (Office of Environment & Heritage, NSW National Parks and Wildlife Service)
[2] SOS – Hygiene Guidelines - https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Wildlife-management/saving-our-species-hygiene-guidelines-200164.pdf
[3] National Light Pollution Guideline for Wildlife - https://www.dcceew.gov.au/environment/biodiversity/publications/national-light-pollution-guidelines-wildlife

4. Reservoir water quality and bushfire management

It is acknowledged that the Upper Reservoir may provide a source of water in future firefighting operations. The suitability of this water for this use would depend on water quality, and whether it may become a source of pollution or adversely affect the composition or growth of native vegetation communities or individual plants and animals.

NPWS has reviewed the EIS and Appendix B – Surface Water Assessment prepared by Hydro Balance, dated 3 September 2024 (**SWA**). It is understood the water to complete the initial fill of the upper and lower reservoirs will be sourced from water stored in the existing voids in the Stratford Mining Complex (approximately 7,100 ML).

There is no assessment regarding the quality of this water, and whether it could be deemed suitable for future firefighting operations.

Recommendations*:*

As part of the RTS, revise the SWA to:

4.1 Undertake additional assessment of water quality associated with the initial fill of the upper and lower reservoirs, including identification of any pollutants and contaminants.

5. Potential ETL upgrade within Wallaroo National Park

NPWS notes the EIS includes an Electricity Transmission Line Environmental Assessment (**Attachment 5**), prepared by Yancoal Australia Limited.

Section A5.1.2 of Attachment 5 acknowledges that an upgrade of the Transgrid owned 132 kV electricity transmission line (**ETL**) will be required to deliver the maximum energy output of the Pumped Hydro Energy Storage. The preferred option for this upgrade would be to a double circuit line between the Stroud Road and Tomago substations.

NPWS highlights its interest in the proposed ETL upgrade as the current line transects Wallaroo National Park.

The EIS however only considers the potential impacts of the construction of a new on-site substation and a realignment of the existing ETL around the lower reservoir to enable safe construction of the project.

The remainder of the ETL upgrade, including the augmentation to a double circuit line, will be subject to a separate environmental assessment, presumably under Part 5 of the E*nvironmental Planning and Assessment Act 1979*.

Recommendations:

5.1 Any future works to the Transgrid ETL alignment within the Wallaroo National Park is undertaken in accordance with the requirements of the *NSW National Parks and Wildlife Act 1974*, and in consultation with the NPWS Hunter Coast Area via npws.huntercoast@environment.nsw.gov.au.