

19 December 2024

Contact: *Jack Sharples*
Water NSW ref: D2024/134598

Cameron Ashe
Department of Planning, Housing and Infrastructure
Locked Bag 5022
PARRAMATTA NSW 2124

Dear Cameron

Water NSW Response to EIS Submissions for Gundry Solar Farm (SSD-48225958)

Water NSW appreciates the opportunity to provide advice regarding the Environmental Impact Statement for the Gundry Solar Farm (SSD-48225958).

As the development is located within the Sydney Drinking Water Catchment, sections 6.61(1) and 6.63 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021* apply.

Water NSW has reviewed the Environmental Impact Statement (EIS) and associated appendices prepared by Umwelt (Australia) Pty Ltd (dated October 2024) and notes:

- there is widespread presence of sodic and dispersive soils across the project area, with a moderate to very high potential dispersion risk anticipated where higher impact surface disturbance is undertaken. This risk is likely exacerbated by increased runoff from the solar panels, particularly where bare groundcover and erosion develop beneath the solar arrays
- a bioretention basin is proposed as part of the stormwater treatment system. Bioretention measures are considered unsuitable for rural developments given potential for sediment build-up (particularly with erodible soils present), as per Table 5.1 of Water NSW's Current Recommended Practice "Using MUSIC in the Sydney Drinking Water Catchment". Alternative measures may therefore be required, to be developed in consultation with Water NSW as part of detailed design
- no details of any existing erosion control measures (including Catchment Protection Scheme (CPS) works), and any other constraints such as any existing erosion gullies and the location of sodic and saline soils has been provided. The impact of any proposed changes to existing CPS works or gullies due to the proposal and possible mitigation measures has also not been outlined
- the site contains a number of mapped watercourses including Gundry Creek and Bullamalito Creek, as well as 1st and 2nd order watercourses. A number of watercourse crossings (via culverts and bed level crossings) will be required to enable access across the site - to be designed to minimise impacts on stream stability and fish passage, in accordance with relevant guidelines and in consultation with DPI Fisheries
- the Water Resources Impact Assessment (Appendix 15) does not include details of the baseline water quality within Gundry Creek and Bullamalito Creek, however, notes that the Operational Environmental Management Plan for the site will include inspection and monitoring requirements including receiving water quality monitoring
- an on-site amenities sewer disposal system will be provided during construction and operation phases, however, the specific details have not been provided
- impacts to groundwater resources, including groundwater dependent ecosystems, are not expected given the groundwater table is unlikely to be intercepted during construction.

WaterNSW requests that the following be prepared in consultation with WaterNSW for long-term sustainable water quality management:

- a final Stormwater Management Plan including:
 - details of how potential water quality impacts will be avoided and/or minimised through project design, and route and site selections for the hardstand areas (including that required during the construction phase)
 - details of the site layout including water quality design measures to treat stormwater runoff from the proposed impervious areas such as solar panels, building roofs, internal access tracks and hardstand areas (Substation and Battery Energy Storage System – either centralised or decentralised final location/s), including suitable alternative measures to the bioretention basin
 - details of measures to limit infiltration of water into highly erodible subsoils, including drippage and runoff from solar panels
 - updated MUSIC stormwater quality modelling, to be refined as part of detailed design, showing a comparison of pre- and post-development scenarios on water quality parameters of key concern (Total Suspended Solids, Total Phosphorus and Total Nitrogen). The modelling should also be consistent with the EIS documentation, particularly for the effective impervious area for access tracks and panels – and should address specific requirements outlined in Attachment 1. WaterNSW will require an electronic copy of the stormwater quality model, and
 - Concept design plans for any stormwater quality treatment measures and required watercourse crossings (both temporary and permanent) including detailed cross sections.
- Conceptual Soil and Water Management Plans for the Construction and Operational Phases of the project, with specific measures to address:
 - the high erosion risk based on dispersive subsoils across the site including diversion of runoff around the site, and adequate measures to stabilise drip lines below the solar panels to reduce any erosion risks and subsoil waterlogging from panels
 - vegetation clearing and offsets, and specifically measures to avoid and/or mitigate impacts to riparian zones and wetland vegetation, and
 - design details of any existing erosion control measures (including Catchment Protection Scheme (CPS) works), and any other constraints such as existing erosion gullies and the location of sodic and saline soils. This should also include potential impacts to existing CPS works or gullies due from the proposal and possible mitigation measures, particularly over Gundary Creek and Bullamalito Creek.
- an Operational Environmental Management Plan (OEMP). The OEMP shall outline and define design details, operation, monitoring, and maintenance of the proposed wastewater pump-out system, stormwater treatment measures and erosion and sediment controls throughout the construction and operation phases of the Solar Farm, including the installed panels. The OEMP should also include measures to manage any bare areas and erosion that develop beneath the solar arrays over time during ongoing operations and should incorporate water quality monitoring of receiving waters.

It is requested that Water NSW continue to be listed as a stakeholder for further consultation on the project, and that we may be given the opportunity to provide further comment on the response to submissions and any associated draft consent conditions.

If you have any questions, please contact Jack Sharples via email at environmental.assessments@waternsw.com.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'Juri Jung', with a stylized, cursive script.

JURI JUNG

A/Manager Environment, Sustainability and Catchment Protection

Attachment 1 – Requirements for revised stormwater quality modelling for Detailed Design

- Final design (length/depth /grades) and locations for the proposed grassed swales, alternative suitable measures for the bioretention basin, and any other proposed stormwater treatment measures, and shown on any associated Stormwater Management Plans
- Final details on the modelled effective impervious area for the solar panels, access roads, facilities and laydown areas, with consistency between the model and associated report. It is noted that 0% effective imperviousness was used in the modelling provided with the EIS. The imperviousness applied in any revised modelling must reflect the actual imperviousness of the proposed site, and be consistent with values in the associated report
- Details of how erosion potential from the panels will be managed i.e. grassed or armoured channels to capture drippage and runoff prior to capture by the downslope grass swales, including how this will be maintained for the life of the project
- include the final Battery Energy Storage System option – either centralised or decentralised location/s
- Include additional roof areas for proposed buildings such as O&M facilities, and construction compound area and suitable stormwater measures to manage runoff from these areas. e.g. rainwater tanks, and
- Consistency between the pre and post total sub-catchment areas – some differences noted in the model.