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Appendix M

SDAP State Code 9 Assessment

State Code 9: Great Barrier Reef wetland protection areas

Table 1: Development with an acceptable outcome

Performance Outcome	Acceptable Outcome	Response
General		
PO1 Development maintains or improves wetland environmental values and native vegetation within the wetland and the buffer	**AO1.1** The buffer surrounding a wetland has a minimum width of: 1. 200 metres, where the wetland is located outside a prescribed urban area; or 2. 50 metres, where the wetland is located within a prescribed urban area.	**Complies with PO1.** The proposed BESS development is located outside the urban footprint, however the proposed OHTL grid connection is partially located within the urban footprint mapped under the zoning mapping of the CCRC Planning Scheme. The wetland is located predominantly within the urban footprint of the CCRC Planning Scheme mapping and accordingly can be described as being within a prescribed urban area. The majority of Project infrastructure is sited in south-western corner of the Project Site, as far as practicable from the wetland and with a buffer to the wetland of approximately 75 m at its narrowest point. The majority of the proposed development therefore complies with AO1.1. However, the proposed overhead transmission line (OHTL) spans the wetland area at the northern end of Lot 1 on RP735276. The OHTL cannot feasibly be sited elsewhere and away from the wetland due to the location of the existing Powerlink Tully substation in Lot 1 on RP716718. An OHTL design has been adopted in order to span the wetland, therefore minimising ground disturbance and clearing of vegetation, with impacts limited to trimming to maintain electrical safety requirements, this would be to a height of 11m under the OHTL. Water quality impacts will be managed through the site-specific Stormwater Management Plan (SMP) (**Appendix I**) and Preliminary Erosion and Sediment Control Plan (P-ESCP) (**Appendix J**) developed for the Project. The SMP demonstrates that there will be an overall net improvement in the runoff water quality discharging from the site.

Performance Outcome	Acceptable Outcome	Response
		Accordingly, the proposed development maintains the environmental values within the wetland and the buffer, with a final built form that: • Has a total development footprint of approximately 9 ha within the 28.7 ha Project Site allows the majority of the Project Site to be left in a natural state, • allows for the operation of infrastructure taking into account the ongoing function of the wetland, the proposed BESS is consistent with the existing adjacent Powerlink substation and OHTL that spans the edge of the wetland. The proposed development does not change the on-site hydrology and presents a no net worsening of existing site conditions. The wetland functions as an ephemeral watercourse on site; however, its operation will not be impacted by the Project infrastructure with flows to the wetland maintained.

Table 2: Development with no acceptable outcome

Performance Outcome	Response
General	
PO2 Development is not carried out in a wetland in a wetland protection area.	**Complies with PO2.** The proposed development will not be carried out in a wetland. While the proposed overhead transmission line alignment intersects the wetland on site, the transmission line will span the wetland area with poles located outside of the wetland. Accordingly, no ground disturbance of the wetland is proposed.
Hydrology	
PO3 Development maintains or improves the existing surface and groundwater hydrology in a wetland protection area.	Complies with PO3. The proposed development maintains the existing hydrological regime of the wetland protection area by the following: • The layout avoids deep cuts and does not involve significant excavation, limiting disruption to natural grades and subsoil profiles that control shallow groundwater flows and interflow. Catchment areas to each release point will also be maintained. This reduces the risk of altering the site's pre-development water balance and baseflow pathways.

Performance Outcome	Response
	• Where practicable, external areas will use pervious finishes (e.g., gravel and grassed/vegetated surfaces) to reduce runoff volume and promote infiltration, consistent with WSUD source-control principles to maintain more natural flow pathways. • Vegetated swales will safely convey frequent flows at shallow depth/velocity and provide pre-treatment, then discharge to bioretention basins sized and modelled as part of the stormwater treatment train (refer to Section 5.3 and Section 5.4 of **Appendix I**). Bioretention systems filter runoff through vegetated media then exfiltrate to surrounding soils and discharge via underdrainage pipes, supporting maintenance of the local water balance. • Collectively, these measures temper frequent-flow peaks/velocities, reduce runoff volumes, and sustain shallow recharge/baseflow contributions, helping to maintain the pre-development hydrologic regime within the mapped Wetland Protection Area. This approach aligns with WSUD hydrologic intent and Queensland stormwater policy objectives for post-development management. Impacts to hydrology are therefore avoided as far as practicable by locating all BESS infrastructure with a suitable buffer to the wetland and avoiding ground disturbance by adopting an OHTL design that will span the wetland where crossing is required the northern end of Lot 1 on RP735276. The Flood Assessment undertaken for the Project (**Appendix I**) demonstrates that while the wetland functions as an ephemeral watercourse on site, its operation will not be impacted by the Project infrastructure.
Water Quality	
PO4 Development does not unacceptably impact the water quality of the wetland in the wetland protection area and in the wetland buffer	**Complies with PO4.** The proposed development will not present adverse water quality impacts to the wetland protection area, as the following measure are included: • The stormwater strategy adopts WSUD treatment trains (including vegetated swales and bioretention) designed to achieve the Great Barrier Reef Discharge Standards as described in the Reef 2050 Water Quality Improvement Plan, with compliance demonstrated via MUSIC modelling. MUSIC modelling results presented Section 5.4 of **Appendix I**, show that the proposed water quality treatment infrastructure will result in a net improvement in the quality of water discharging from the site. • During construction, an Erosion and Sediment Control (ESC) plan will be developed and implemented minimising sediment export. • Infiltration measures will include adequate pre-treatment (e.g. vegetated swales) to avoid clogging and to protect groundwater quality.

Performance Outcome	Response
	• Together, these measures reduce pollutant loads at the boundary and avoid unacceptable water-quality impacts to any downstream wetlands or buffers. An SMP has been prepared for the Project (**Appendix I**) and includes outcomes of assessments undertaken to demonstrate that the proposed development achieves the relevant stormwater quality requirements. Stormwater treatments identified within the SMP for the proposed development include vegetated swales leading to end-of-line bioretention basins. The proposed stormwater treatment systems are located outside of the wetland and while located within the buffer area, are located within previously cleared areas and are appropriately sited to capture, treat and redirect flows within the identified post-development catchments. It is considered these management treatments adequately treat flows to avoid adverse water quality impacts within and adjacent to the wetland area. Modelling undertaken for the proposed development demonstrates that the proposed stormwater quality management measures: • Achieve the relevant Water Quality Objectives (WQOs) for the Tully River catchment • Comply with the Reef 2050 Water Quality Improvement Plan • Provide an overall net improvement in the runoff water quality discharging from site (i.e. relative to baseline conditions). A P-ESCP has additionally been prepared for the Project (**Appendix J**) to establish the baseline requirements for soil erosion and sediment control applicable to Project construction works. Management measures are proposed in accordance with *Best Practice Erosion and Sediment Control* (International Erosion Control Association (IECA) 2008).
PO5 Development does not use the wetland in the wetland protection area for stormwater treatment.	**Complies with PO5.** All stormwater treatment devices are sited outside mapped wetlands and their buffers; wetlands are not used for detention, polishing, or conveyance as part of the treatment train. Discharges will be released to constructed conveyance or upland areas with energy dissipation prior to any natural features, ensuring wetlands are not utilised for stormwater treatment. With the use of these treatments, there will be no direct discharge of stormwater into a wetland. Refer to the Figure 6-1 within the SMP (**Appendix I**) for the proposed locations of stormwater treatments.
Land Degradation	
PO6 Development is located and designed to protect the wetland protection area from land degradation.	**Complies with PO6.** The proposed development has been sited and designed to protect the wetland protection area by:

Performance Outcome	Response
	• locating all BESS infrastructure outside of, and as far as practicable from the wetland, establishing appropriate buffers and retaining areas of native vegetation • adopting an OHTL design that will span the wetland where crossing is required at the northern end of Lot 1 on RP735276. OHTL installation will minimise ground disturbance and clearing of vegetation, with impacts limited to trimming to maintain electrical safety requirements. The Flood Assessment undertaken for the Project (**Appendix I**) demonstrates that impacts to flood behaviour are not anticipated and there will be a no-worsening of existing conditions with respect to flooding, further protecting the wetland from degradation. To mitigate any remaining risks, a site-specific SMP (**Appendix I**) and P-ESCP (**Appendix J**) have been developed for the Project, which include management measures that will minimise short and long-term soil erosion effects and provide stormwater treatments to appropriately direct flows.
Fauna Management	
PO7 Development protects wetland fauna from any impacts associated with noise, light or visual disturbance.	**Complies with PO7.** Impacts to fauna are most likely to occur during Project construction, and will be mitigated through standard construction management measures such as: • Use of noise-reducing equipment and conducting regulator maintenance in accordance with manufacturers specifications to limit the impact of construction noise on sensitive fauna • Implementing measures to reduce ground vibration from plant and machinery • Provision of outdoor lighting in accordance with *AS/NZS 4282:2023 Control of the obtrusive effects of outdoor lighting*.
PO8 Development protects the movement of wetland fauna within and through a wetland protection area.	**Complies with PO8.** The wetland is mapped under the CCRC Planning Scheme as a mahogany glider corridor. Field surveys within the mapped mahogany glider corridor indicated that the vegetation is unlikely to be suitable as preferred habitat as: • vegetation throughout the mapped corridor represents closed regrowth vegetation consisting of dense young tree canopy with a dense small tree and shrub layer, indicating it may not be ideal for Mahogany glider movement • Abundant presence of two other tree species which are contra-indicator for Mahogany glider • there were few large trees of a suitable size to support den hollows.

Performance Outcome	Response
	The proposed development avoids impacts to the corridor and fauna movement by: • locating all BESS infrastructure outside of the corridor, establishing appropriate buffers and retaining areas of native vegetation • adopting an OHTL design that will span the corridor where crossing is required at the northern end of Lot 1 on RP735276. Impacts to mahogany glider habitat and connectivity are not anticipated. (refer to Section 5.6.3.1 of the Ecological Assessment Report in **Appendix F**).
PO9 Development does not introduce pest plants, pest animals or exotic species into a wetland and its buffer.	**Complies with PO9.** The proposed development will be undertaken in accordance with best practice weed and pest management measures, with specific mitigation measures to be documented within the relevant Construction and Operation Environmental Management Plans to be developed for the Project.
Matters of State Environmental Significance	
PO10 Development outside the wetland is designed and sited to: 1. avoid impacts on matters of state environmental significance; or 2. minimise and mitigate impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible; and 3. provide an offset if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable significant residual impact on a matter of state environmental significance.	**Complies with PO10.** The proposed development successfully avoids impacts on MSES. Refer to Section 5.6.2 of the Ecological Assessment Report (**Appendix F**) for discussion of specific MSES values.