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Environmental Constraints Assessment for Proposed Battery Storage Facility at Phillip Island



Prepared for: MONDO

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Issue and Revision Record

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1	24/03/2021	Mark Vergara	Initial Draft

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1. INTRODUCTION

Acacia Environmental Management (Acacia) was engaged by Mondo to undertake an Environmental Constraints Assessment for proposed locations for a battery storage facility in Phillip Island.

Three locations within two properties in Cowes township were assessed for location feasibility on 19 March 2021 (Figure 1).



Figure 1: Locations assessed for siting the proposed battery storage facility.

These environmental constraints assessment report was prepared as part of Mondo's environmental due diligence in its site selection process. This assessment involves high level evaluation of project impacts to native vegetation, waterway, rare or endangered flora and fauna and identifies Commonwealth, State and local legislative implications. Where possible, logistical constraints are also identified within each site to provide Mondo as much details as possible to undertake a well-informed decision in their site selection.

The facility is estimated to have a construction footprint of 35m x 40m and will consist of a paved and fenced area containing low structures and connected to the electricity grid via underground cables (Figure 2).

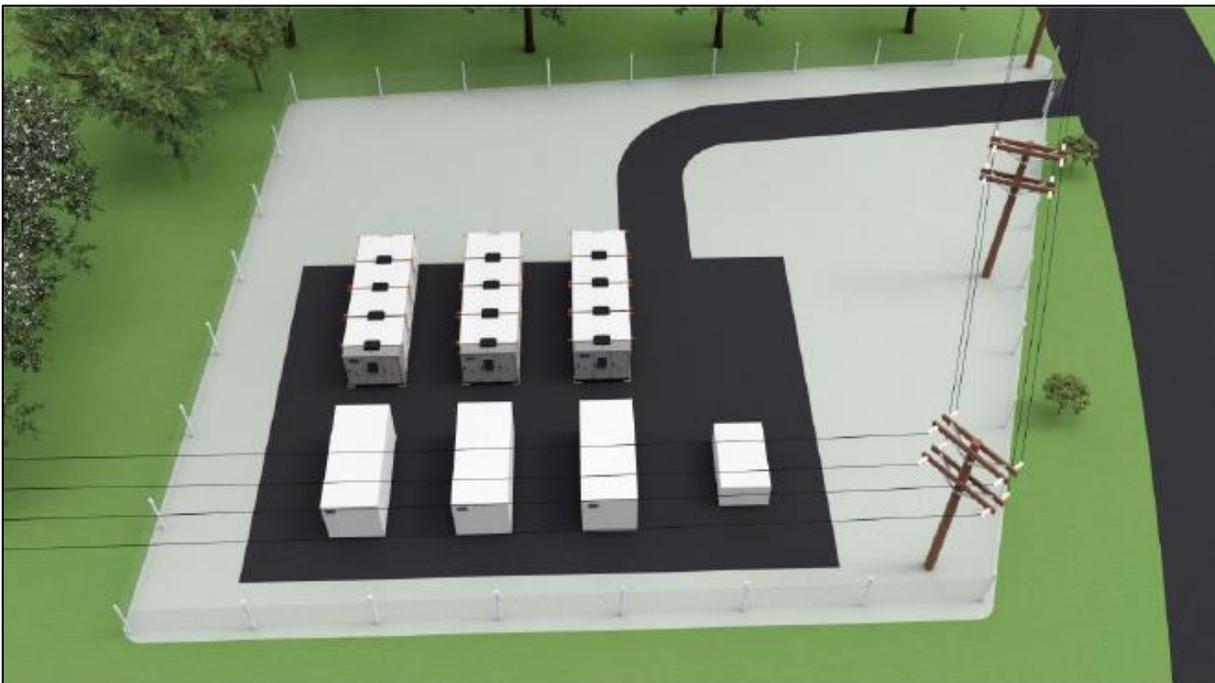


Figure 2: Diagram of proposed design for the battery storage facility.

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2. SITE ASSESSMENT

The following properties were assessed as candidate locations for the proposed battery storage facility:

- 380 Back Beach Road, Cowes 3922
- 49 Ventnor Beach Road, Cowes 3922

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2.1 OPTION 1

Option 1 is located on the northeast section of #380 Back Beach Road, Cowes 3922. It is positioned north of the watercourse connecting to Saltwater Creek and west of Gap Road (Figure 3).



Figure 3: Option 1 showing the indicative construction footprint as white polygon. Red polygon indicate approximate location of the battery storage facility, yellow dotted areas indicate native vegetation removal, grey area indicate culvert location, blue polygon show indicative location of the watercourse, orange line indicate cadastral boundaries.

The proposed location is in a former paddock area and characterised by a mix of native and exotic herbs and pasture grasses (Figure 4).

The construction footprint is shown with a 3m buffer around the 35m x 40m facility to accommodate ground disturbance during construction. In addition, the proposed facility should be located at least 5m away from the watercourse located on the south of the area (Figure 5).

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Figure 4: Indicative location of Option 1, looking north.

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Figure 5: Culvert with water present during assessment, looking west along the watercourse.

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A gap within the rows of vegetation along Gap Road (culvert area) can be utilised to access the facility (Figure 6). However, the removal of native vegetation belonging to endangered Swamp Scrub along will be required to facilitate temporary access of construction vehicles and equipment during construction. As such, a planning permit from the Bass Coast Shire Council may be required under Victorian Planning Provision Clause 52.17 – Native Vegetation. The cleared area can be maintained in the future as access road to the facility.

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Figure 6: Access area between the rows of native vegetation showing the culvert and drainage area supporting endangered Swamp Scrub, looking north along Gap Road.

It should be noted that a gravel bike trail bisects the two rows of native vegetation along the western section of Gap Road growing on the drainage area connecting to the watercourse (Figure 7). These constraints will need to be taken into consideration during construction works, including the installation of additional culverts in the areas proposed for access to the facility.

Option 1 is located ~400m south of the existing AusNet Substation located at the northeast corner of Ventnor Beach Road and Gap Road and will require approximately 450m of underground cabling to facilitate connection.

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Figure 7: Gravel bike trail bisecting the two rows of native vegetation proposed for removal along the drainage areas of Gap Road.

2.2 OPTION 2

Option 2 is located on the northeast corner of #380 Back Beach Road and #49 Ventnor Beach Road and approximately 45m north of Option 1 (Figure 8).

Similar to Option 1 the location is in a former paddock area characterised by a mix of native and exotic herbs and pasture grasses (Figure 9).

A gap within the row of vegetation along Gap Road (culvert area) can be utilised to access the facility (Figure 10). However, the removal of native vegetation belonging to endangered Swamp Scrub along Gap Road will be required to facilitate temporary access of construction vehicles and equipment during construction. As such, a planning permit may be required prior to vegetation clearance. The cleared area can be maintained in the future as access road to the facility.

It should be noted that there is an existing fenced water pumping station near the culvert area and will need to be avoided when creating access to the location (Figure 11).

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Figure 8: Option 2 showing the indicative construction footprint as white polygon. Red polygon indicate approximate location of the battery storage facility, yellow dotted areas indicate native vegetation removal, grey area indicate culvert location, blue polygon show existing water pumping station, orange line indicate cadastral boundaries.



Figure 9: Indicative location of Option 2, looking north.

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Figure 10: Access area between the rows of native vegetation showing the culvert and drainage area supporting endangered Swamp Scrub, looking east at Gap Road.



Figure 11: Water pumping station adjacent to Option 2, looking east towards Gap Road.

Similar to Option 1 a gravel bike trail bisects the rows of native vegetation growing on the drainage area connecting to the watercourse (Figure 12). These constraints will need to be taken into consideration during construction works, including the installation of additional culverts in the areas proposed for access to the facility.

Option 1 is located ~350m south of the existing AusNet Substation and will require approximately 360m of underground cabling to facilitate connection.



Figure 12: Gravel bike trail bisecting the two rows of native vegetation growing along the drainage areas of Gap Road. The vegetation shown in the background are proposed for removal.

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2.3 OPTION 3

Option 3 is located on the northern section of #49 Ventnor Beach Road and approximately 150m southwest of the AusNet Substation (Figure 13).



Figure 13: Option 3 showing the indicative construction footprint as white polygon. Red polygon indicate approximate location of the battery storage facility, orange line indicate cadastral boundaries.

Similar to the other options, the area is a former paddock and characterised by a mix of native and exotic herbs and pasture grasses (Figure 14). DELWP modelling identifies the construction footprint as endangered Plains Grassy Woodland. However, preliminary site assessment indicated that the area may not be representative of this ecological vegetation class. A review of historical images showed that the site has been subject to heavy disturbance/modification in the past (Figure 15). The habitat quality can be confirmed by a DELWP-accredited Vegetation Quality Assessor by undertaking detailed assessments of the site at a later date should the project decide to proceed with the works.

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Figure 14: Indicative location of Option 3, looking east towards Gap Road.

The location has an existing access road which leads to the proposed location. As such, no further vegetation removal is required.

Option 3 is estimated to require only 150m of underground cabling to facilitate connection to the AusNet Substation.

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Figure 15: Historical image analysis of Option 3 showing that the area has been subjected to high disturbance or modification in the past (top - Nov 2016; middle - Nov 2018; bottom - Nov 2020).

A summary of the environmental constraints identified for each option is presented in Table 1.

Table 1: Summary of environmental constraints.

CONSTRAINTS	OPTION 1	OPTION 2	OPTION 3
Land Ownership	Council	Council	Council
Planning Zone	Farming	Farming	Farming
Designated Bushfire Prone Area	Yes	Yes	Yes
Ecological Vegetation Class	Endangered Swamp Scrub	Endangered Swamp Scrub	Endangered Plains Grassy Woodland BUT can be nil after VQA
Native Vegetation Removal	0.018ha	0.017ha	0.189ha BUT can be nil after VQA
Native Vegetation Offset	Required	Required	Potentially no, depending on outcome of the VQA
Planning Approval	Required	Required	Potentially not, depending on outcome of the VQA
Underground Cabling Required to Substation	450m	360m	140m
Existing Structure/s	Culvert	Culvert, Pump Station	Access Road
Additional Environmental Constraints	Unnamed Watercourse	Unnamed Watercourse	None

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