

Crookwell 3 Wind Farm Transport

Purpose

URS Australia Pty Ltd was engaged to assess the transport related impacts arising from the proposed Crookwell 3 Wind Farm.

The purpose of the assessment was to identify and consider the traffic impact of the project during the construction and operational phases, the cumulative traffic impacts with the adjacent Crookwell 2 Wind Farm, and measures to mitigate any of these impacts.

Key Findings and Impacts

In order to ascertain the likely transport related effects arising from the proposed Crookwell 3 Wind Farm, the report assumed:

- up to 18 month construction phase,
- 45 construction personnel on site during the peak construction month, and
- 2,603 one-way vehicle movements generated during peak construction month.

The report specifies the preferred over-dimensional (OD) vehicle route and access points to the site, which are as follows:

- the preferred port for import of turbine components and equipment is Port Kembla;
- access between Port Kembla and the Hume Highway would be via Main Road 88 (Mount Keira Road) to Goulburn;
- access past Goulburn would be via the Goulburn Bypass;
- the site would be accessed from Goulburn via Crookwell Road and Woodhouselee Road;
- the preferred site access options are by Greywood Siding Road (East site) and on the northern site boundary via Old Crookwell Road (South site).

The two preferred site access routes were analysed to determine the impact of construction vehicles on the performance of the existing road network. The sites include:

- Crookwell Road/Crookwell 3 South access, and
- Woodhouselee Road/Crookwell 3 East access.

The results of this modelling indicated that:

- very little impact would occur under the conditions of the 'worst-case' scenario;
- Woodhouselee Road and Crookwell Road have sufficient spare capacity to allow the turning movements in and out of both site accesses without interfering with the existing road network performance;
- the largest queue length (8 metres) would be experienced during the AM peak hour at the Crookwell 3 South site access and is considered minor; and
- there is no significant cumulative impact expected due to the traffic movements for both the Crookwell 2 and Crookwell 3 Wind Farms.

The impact of the proposed wind farm to the existing road network is considered negligible. In summary:

- There is no significant impact to the existing road network due to the proposed wind farm, nor significant cumulative impacts with the Crookwell 2 Wind Farm development.
- The impact caused by operational traffic associated with the wind farm will be insignificant.
- Road network improvements are not required to be undertaken given the low vehicle volumes estimated.

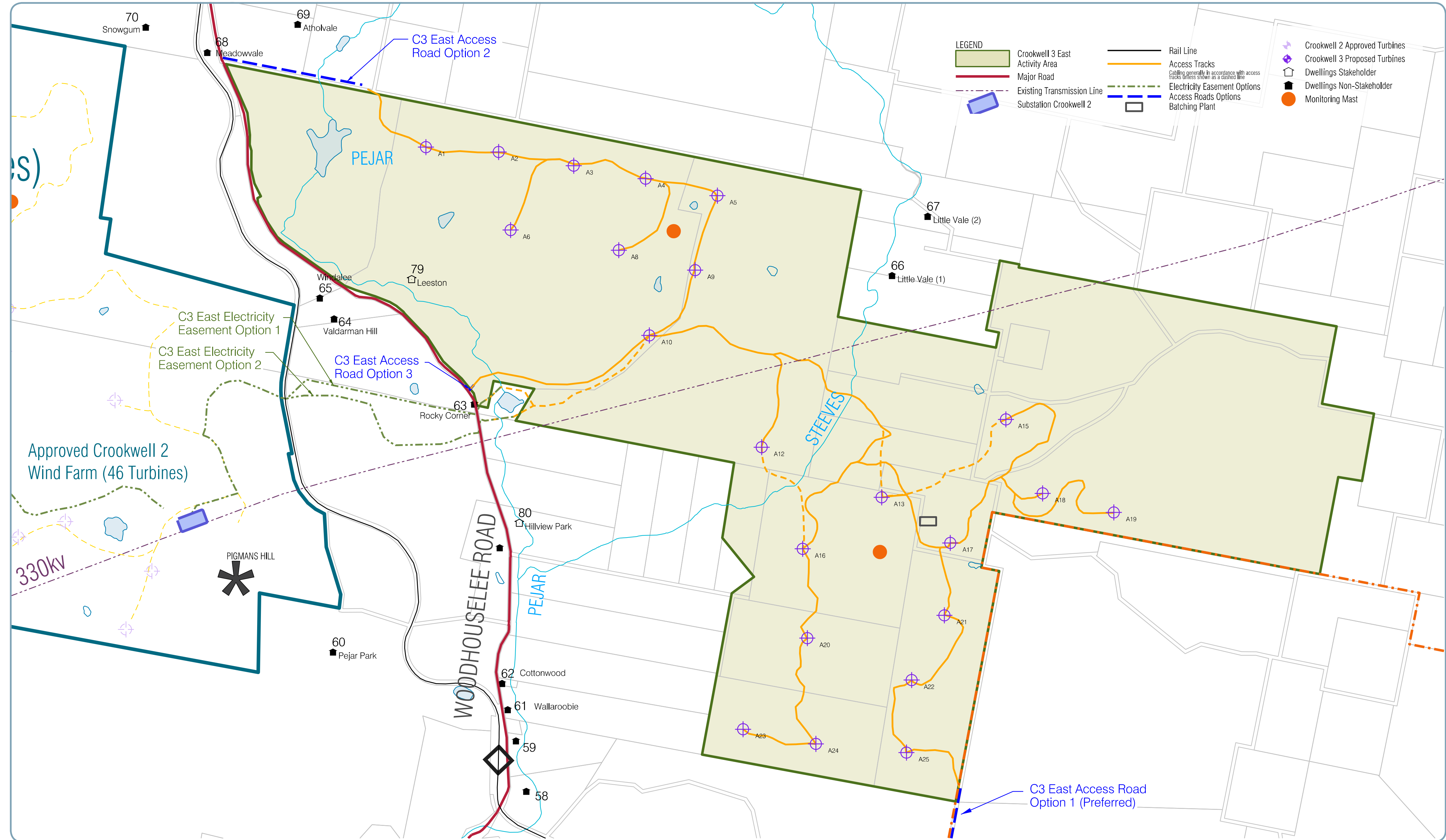


Figure 1: Indicative Access & Infrastructure Plan - Crookwell 3 East

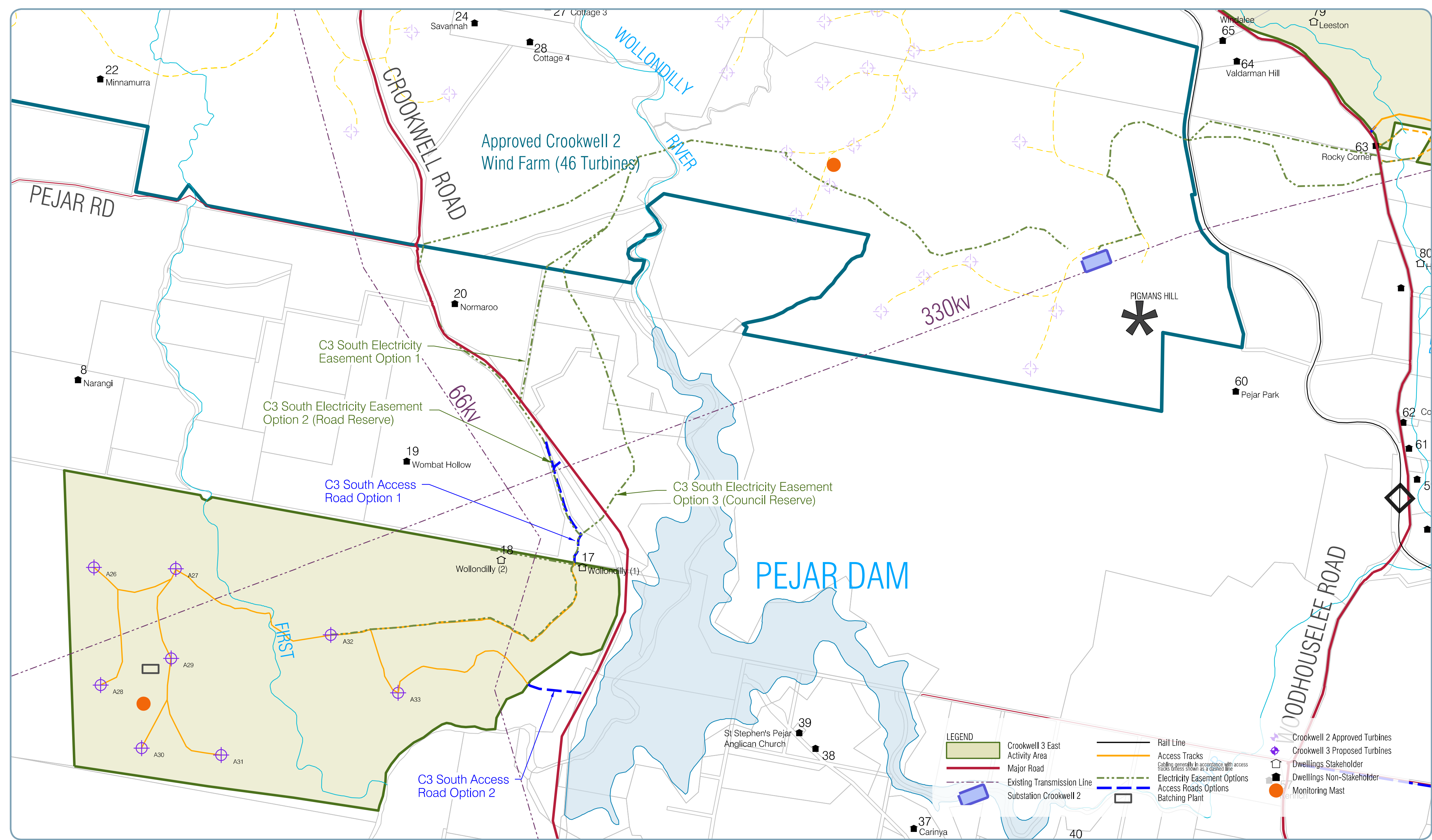


Figure 2: Indicative Access & Infrastructure Plan - Crookwell 3 South

Response to Findings

The road network and intersection upgrades identified for Crookwell 3 Wind Farm that will be already undertaken as part of the Crookwell 2 Wind Farm development include:

- All intersections that require upgrading on the route from Port Kembla to Crookwell, including the Crookwell Road/ Woodhouselee Road intersection.
- Crookwell Road (between Woodhouselee Road and Crookwell 3 South site access).
- Woodhouselee Road (between Crookwell Road and Crookwell 3 East site access).

These upgrades likely to occur prior to the construction of the proposed Crookwell 3 Wind Farm and will create improved road conditions which provide tangible benefits to the wider community.

URS advises that a detailed Transport Management Plan should be developed for the project. This Plan should be prepared before the construction of the project, to outline the finalised transport details and include updated peak one-way vehicle movements generated figures based on the final approved design and construction requirements, and management and mitigation measures for all traffic related activities. An example of recommended impact mitigation measures include:

- Provision of a security bond to be held by the relevant road authority to be used for any unforeseen deterioration in pavement quality;

- Detail the frequency for road inspections to be conducted to be compared against the existing conditions (at which representatives are to be present);
- Detail the roads to be used by OD and/or construction vehicles;
- Outline expected speed restrictions to be in place surrounding the wind farm sites; and
- Minimum signage and line-marking to be installed.