Section 5: Adverse Effects

What are the anticipated and known adverse effects of the project on the environment.

1.1 Ruarangi

The following matters have been identified as anticipated and known effects for Ruarangi:

s 9(2)(b)(ii)

s 9(2)(b)(ii)

s 9(2)(b)(ii)

s 9(2)(b)(ii)

Surface Water – Several waterways intersect the site. The turbines are to be placed at a higher topography. Construction phase stormwater will be managed to ensure any effects on waterways are minimised. Carefully drafted resource consent conditions and a detailed Erosion and Sediment Control Plan will be important tools to manage anticipated environmental effects. It is not anticipated that the operation phase of the wind farm will have any effect on waterways.

s 9(2)(b)(ii) . Resource consent conditions will ensure that noise standards are adhered to.

Geotechnical and Natural Hazards – Landslides, inferred landslides, settlement, foundation conditions, and regional seismicity have all been explored. Further engineering geological mapping will determine whether any of the proposed turbines require shifting on the site.

Construction impacts – access, laydown, earthworks, and civil engineering have already been included in the project planning. A suggested route for internal site roads has been produced making use of existing access tracks already available. A transport route assessment from the Port of Auckland has been undertaken (with Port Marsden identified as a backup due to its proximity to the site). Based on this assessment, the information received and subject to any required route and/or infrastructure modifications, it is anticipated that the wind farm components can be transported from Port of Auckland to Ruarangi on the route recommended.

1.2 Ratahiwi

The following matters have been identified as anticipated and known effects for Ratahiwi:

s 9(2)(b)(ii)

s 9(2)(b)(ii) - s 9(2)(b)(ii)

s 9(2)(b)(ii)

Surface Water – There are very few natural state waterways within the wind farm development envelope, The turbines are to be placed at a higher topography

Construction phase stormwater will be managed to ensure any effects on waterways are minimised. Carefully drafted resource consent conditions and a detailed Erosion and Sediment Control Plan will be important tools to manage anticipated environmental effects. It is not anticipated that the operation phase of the wind farm will have any effect on waterways.

s 9(2)(b)(ii) Resource consent conditions will ensure noise standards are adhered to.

Geotechnical and Natural Hazards – Landslides, inferred landslides, settlement, foundation conditions, and regional seismicity have all been explored via a desktop study. Further engineering geological mapping will determine whether any of the proposed turbines require shifting on the site.

Construction impacts – access, laydown, earthworks, and civil engineering have already been included in the project planning. A suggested route for internal site roads has been produced making use of existing access tracks already available. A transport route assessment from Napier Port has been undertaken. Based on this assessment, the information received and subject to any required route and/or infrastructure modifications, it is anticipated that the wind farm components can be transported from Napier Port to Ratahiwi on the route recommended. It is noted that several other wind farms in the vicinity of the site have already successfully navigated a large majority of this route for turbine haulage.

1.3 Kurow

The following matters have been identified as anticipated and known effects for Kurow:

s 9(2)(b)(ii)

s 9(2)(b)(ii)

Geotechnical and Natural Hazards – Landslides, inferred landslides, settlement, foundation conditions, and regional seismicity have all been explored via a desktop study. Further engineering geological mapping will determine whether any of the proposed turbines require shifting on the site.

Construction impacts – access, laydown, earthworks, and civil engineering will be considered. A suggested route for internal site roads has been produced making use of existing access tracks already available. This is an important mitigation measure to be employed to protect existing indigenous vegetation. A transport route assessment has been undertaken from PrimePort Timaru to the Kurow site. Based on this assessment, the information received and subject to any required route and/or infrastructure modifications, it is anticipated that the wind farm components can be transported from PrimePort Timaru to Kurow on the route recommended.