

## 9. Residential Viewpoints

Views and visual impacts from residential dwellings have the greatest potential for visual impacts to be brought about by the Project. The visual impact is in part one that can be assessed by discussing the number and scale of wind turbines in particular views, although the perceived visual impact is one that is influenced by the individual viewer. For this reason, the assessment of visual impact from residential properties differs from that undertaken from publicly accessible viewpoints.

For residential occupiers, the view to the wind turbines may not be just a glimpse or a 5-minute experience as they drive around the local road network, but potentially a permanent view from living areas or outside entertainment spaces of their homes. Landholders that farm the land may also be impacted as they work on their property. These areas, like other places of work, are not considered as sensitive as views from places of residence or attached private open space. The analysis of visual impact from residential properties is based on the following assumptions:

- An occupant of a residential dwelling will have a high degree of sensitivity to the change in their immediate landscape;
- Visitor numbers are not applicable to residences;
- Farmers may be able to see the wind turbines as they move around their property. These areas may be used as much in daylight hours as the living areas of their residences; and
- Landscape can be designed to mitigate the visual impact when located near a fixed viewpoint, such as a residence, with far greater ease than that can be achieved along the road network.

Figure 9-1 shows the SAA and residential dwellings within 6km of a turbine.

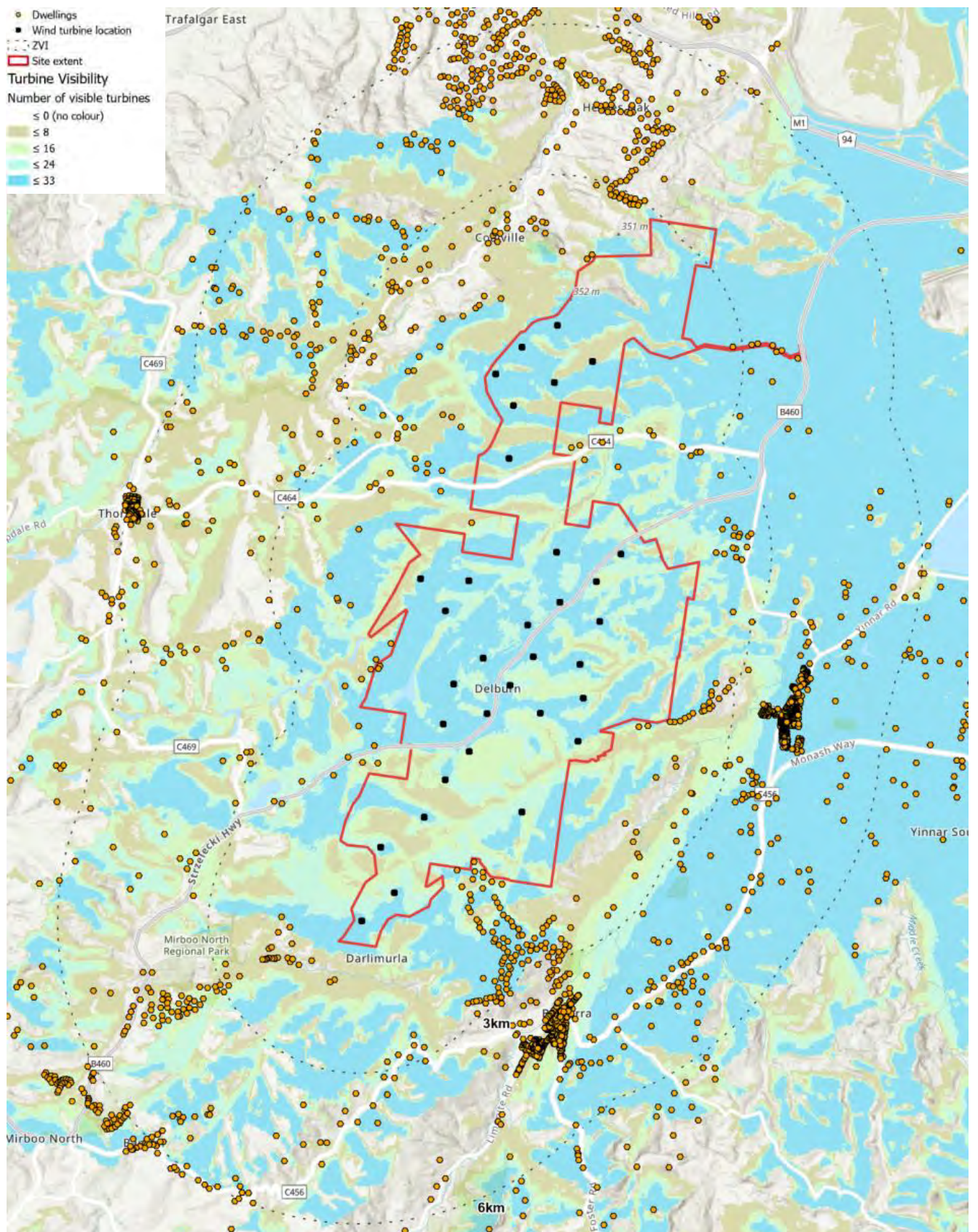


Figure 9-1: Residential dwellings within 6km of proposed turbines and theoretical visibility

The SAA shown above is a theoretical model that is based upon key Project infrastructure and the topography of the surrounding landscape. The SAA does not include features such as vegetation, buildings, structures or micro topographical changes that can also influence or alter or assist to screen or filter views.

The majority of the dwellings to the areas in the north-west, part of the west and south-west of the site are in areas where there is little to no theoretical turbine visibility. This is due to the topographical variation and diversity in these areas that comprises steep sided rolling hills with deeply incised valleys and flatter hilltops and ridgelines. In these areas residential dwellings and clusters tend to be set lower in the landscape and away from the elevated ridgelines.

Areas to the east of the Project which are set down in the low generally flat plains alongside the Morwell River have the greater potential for turbine visibility.

There are 1567 dwellings within 6.0km of a proposed turbine. The following table summarises the residential dwellings and their relative distance to the nearest turbine.

Table 9-1: Residential dwellings within 6.0km of a turbine

Distance to nearest turbine	Number of dwellings
1.0-2.0km	103
2.0-3.0km	214
3.0-4.0km	256
4.0-5.0km	694
5.0-6.0km	300*

\*This data has not been confirmed in the field. Some of these structures may form sheds, structures or other buildings that are not dwellings and therefore not inhabited.

To assist with the visual assessment of residential dwellings, where appropriate these are discussed in clusters which for the purposes of this assessment. 7 distinct clusters can be determined by their proximity to the project. These are set out below.

#### **North-eastern Residential Cluster**

- Driffield and Hazelwood

#### **Eastern Residential Cluster**

- Yinnar and Yinnar South

#### **South-eastern Residential Cluster**

- Boolarra

#### **South-western Residential Cluster**

- Darlimurla, Mirboo North and Baromi

#### **Western Residential Cluster**

- Delburn and Thorpdale

#### **North-western Residential Cluster**

- Narracan and Coalville; and



**Northern Residential Cluster**

- Hernes Oak and Moe South.

Figure 9-2 shows these residential clusters.

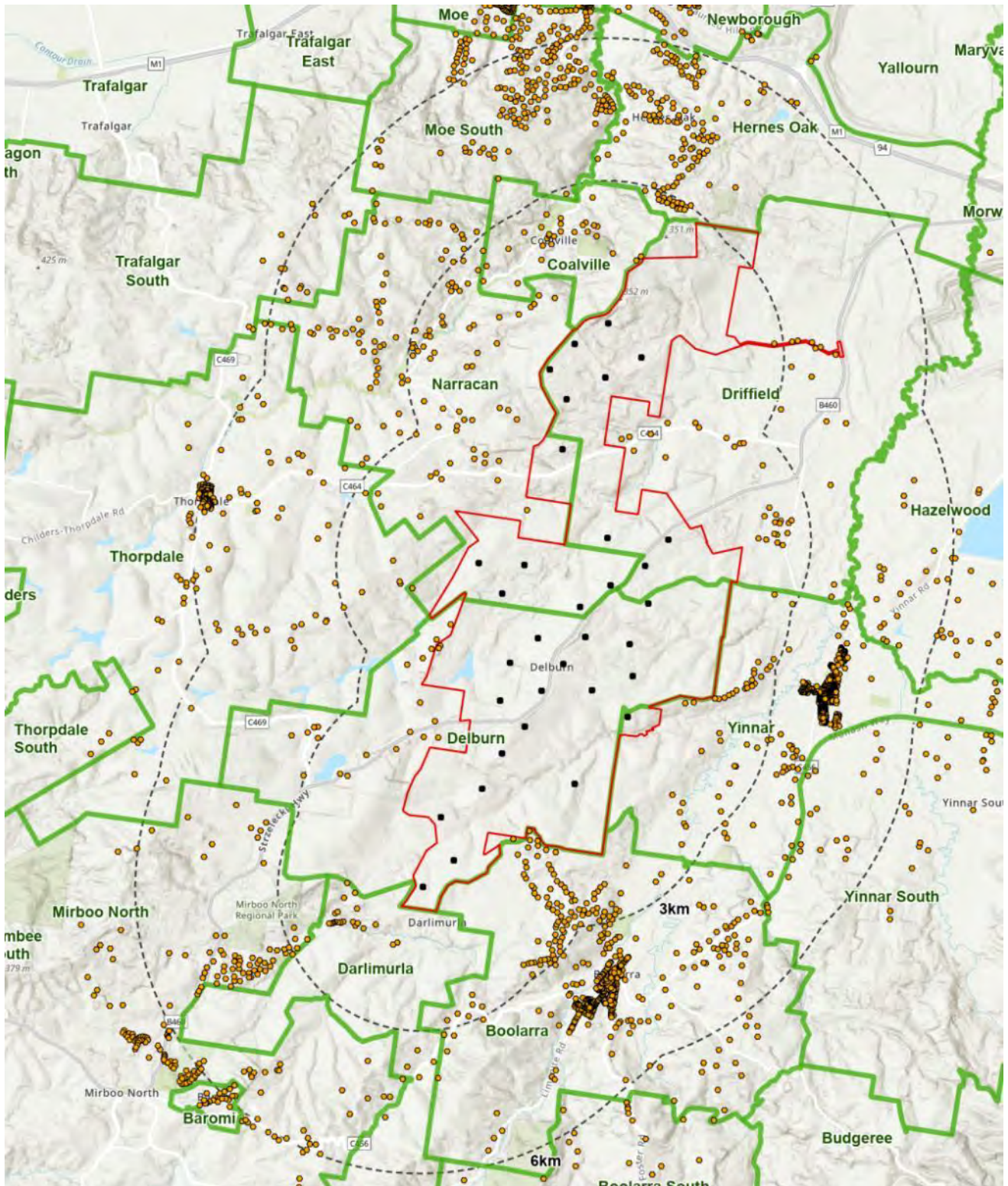


Figure 9-2: Residential dwellings within 6km of proposed turbines



A number of residential dwellings have been visited over the duration of the Project to assist with ongoing discussions regarding views, visibility and potential visual impact from residential dwellings. These visits have formed part of this landscape and visual impact assessment from residential dwellings and to assist OSML in providing information to local community.

The following section will assess residential dwellings surrounding the Project where the resident has given permission for their dwelling to be included in the assessment.

## 9.1 North-eastern Residential Cluster

The North-eastern Residential Cluster landscape is characterized by cleared rolling hills within the Driffield area out to cleared flat or slightly undulating farmland around Hazelwood. Vegetation is generally limited to roadsides, wind breaks and creek lines.

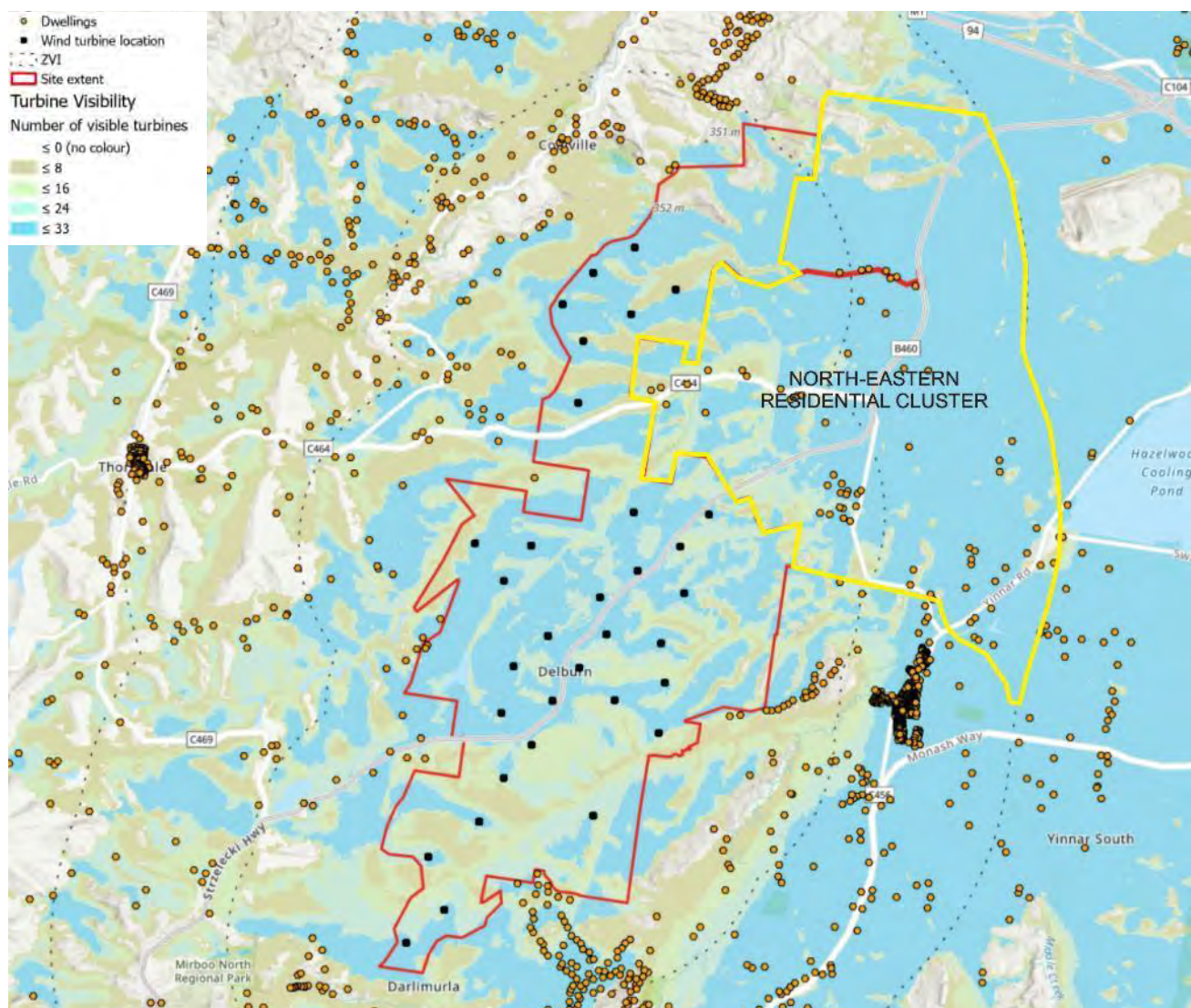


Figure 9-3: Northeastern Residential Cluster

A number of residential dwellings have been visited in this cluster, several dwellings have provided their consent for the assessment of views and visual impact from their dwelling to be included within this assessment. These are assessed below.

### 9.1.1 Dwelling #607

Dwelling #607 is located within the North-eastern residential cluster. The nearest turbine is 1.7 km south (T16).

Figure 9-4 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-4: Dwelling #607 context map

Figure 9-5 shows the existing view looking south from the rear of the dwelling.

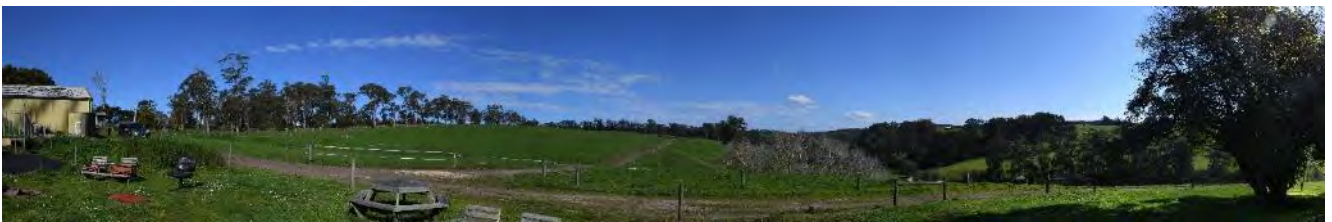


Figure 9-5: Dwelling #607 – Existing view looking south

Figure 9-6 shows a similar view looking south-west taken by OSMI using the TrueView imagery. This shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-6: Dwelling #607 – TrueView image looking south (Source: OSMI Australia)

Several turbines would sit above the ridge and existing vegetation seen in the background of Figure 9-6. The visual impact in this view would be high.

Figure 9-7 shows the existing view looking west from the deck on the western side of the dwelling.

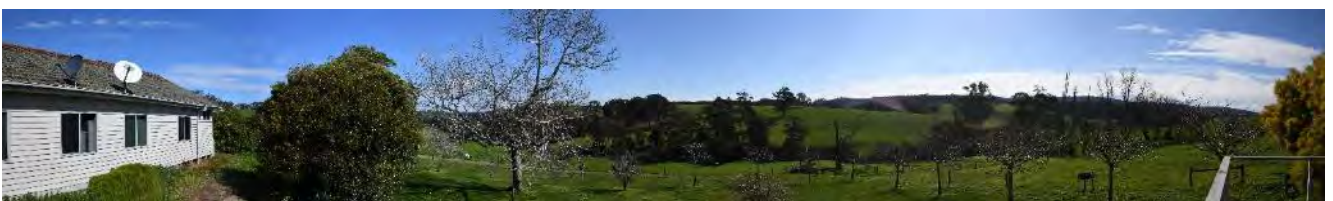


Figure 9-7: Dwelling #607 – Existing view looking west

Figure 9-8 shows a similar view looking west from the deck taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-8: Dwelling #607 – TrueView image looking west (Source: OSMI Australia)

In this view it is clear that the turbines would sit above the crest of the hill in the nearby paddock and existing vegetation within the lower creek and within the landscaped area attached to the dwelling.

Figure 9-9 shows a similar view looking north-west from the deck taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-9: Dwelling #607 – TrueView image looking north-west (Source: OSMI Australia)

Figure 9-9 shows that existing vegetation in proximity to the deck as well as several large trees along the creek line in the nearby paddocks to the north-west of the dwelling. This vegetation will assist to filter views to the turbines generally north-west and north of the dwelling.

The overall visual impact would be **High** due to the proximity of turbines in several key views and locations and areas of private open space in proximity to the dwelling.

Due to the elevated nature of views from the dwelling and the deck and the topography which falls away from the dwelling in directions of the turbines these views would be challenging to mitigate. Landscape mitigation is unlikely to be effective from this dwelling location.

### 9.1.2 Dwelling #4587

Dwelling #4587 is located within the North-eastern residential cluster. The nearest turbine is approximately 1.8km south (T16).

Figure 9-10 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-10: Dwelling #4587 context map

Figure 9-11 shows the existing view looking west from the dwelling entrance.



Figure 9-11: Dwelling #4587 – Existing view looking west

Figure 9-12 shows a similar view looking south taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-12: Dwelling #4587 – TrueView image looking south (Source: OSMI Australia)

Turbines would sit above the hill and existing vegetation when looking south from the front yard.

Figure 9-13 shows a similar view looking south-west towards Dwelling#607 taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-13: Dwelling #4587 – TrueView image looking south-west (Source: OSMI Australia)

Existing vegetation seen within Figure 9-13 shows the ability of landscape mitigation to assist in filtering views to turbines.

Figure 9-14 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-14: Dwelling #4587 – TrueView image looking west (Source: OSMI Australia)

Views to the north-west and north will be partially filtered or screened by vegetation within the road reserve. Turbines will be visible from the south through to the west.

For these reasons, the overall visual impact would be **Moderate-High**.

Existing vegetation seen in Figure 9-12 to Figure 9-14 shows the ability of landscape mitigation to assist in filtering views to turbines. Once landscape mitigation is established the visual impact would reduce to **Low**.



### 9.1.3 Dwelling #608

Dwelling #608 is located within the North-eastern residential cluster. The closest visible turbine is 1.6 km north-west (T02).

Figure 9-15 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-15: Dwelling #608 context map

Figure 9-16 shows the existing view looking north from the existing deck and entertaining area along the northern side of the dwelling.



Figure 9-16: Dwelling #608 – Existing view looking north

There are clear views to the north which are afforded by the elevated nature of the dwelling and fall of the land towards Morwell-Thorpdale Road to the north.

Figure 9-17 shows a similar view looking north taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-17: Dwelling #608 – TrueView image looking north (Source: OSMI Australia)

Figure 9-17 shows part of the view looking directly to the north with the nearest turbine in the view.

Figure 9-18 shows a view looking west taken from the western edge of the deck by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-18: Dwelling #608 – TrueView image looking west (Source: OSMI Australia)

Tips of the turbines are visible above the existing vegetation and less obvious than those to the north where there are clear views over the nearby paddocks and hills over the valley.

Figure 9-19 shows the existing view looking south to west from the rear of the dwelling.





Figure 9-19: Dwelling #608 – Existing view looking south to west

Figure 9-19 shows the existing view looking south from the dwelling includes a low rise, sheds and other structures.

Figure 9-20 shows a view looking south from the edge of the fence approximately 25m south west of the dwelling and seen roughly central to the view of Figure 9-19 taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-20: Dwelling # 608 – TrueView image looking south (Source: OSMI Australia)

This view sits above the low rise seen in Figure 9-19 and is therefore a conservative view. Figure 9-20 shows that as you move around the top of the hill south of the dwelling turbines would be visible.

Figure 9-21 shows a view looking south from the gate behind the shed approximately 50 m south-east of the dwelling taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-21: Dwelling #608 – TrueView image looking south from behind shed (Source: OSMI Australia)

There are clear views to the north and partially filtered views to the west from the main living areas at the dwelling. The main views would be from the entertaining deck.

The overall visual impact would be **High** due to the proximity of turbines in several key views and locations and areas of private open space in proximity to the dwelling.

Due to the elevated nature of views from the dwelling and the deck and the topography which falls away from the dwelling in directions of the turbines these views would be challenging to mitigate. Landscape mitigation is unlikely to be effective from this dwelling location in views to the north. For views to the south from the dwelling, landscape mitigation may be effective.



#### 9.1.4 Dwelling #609

Dwelling #609 is located within the North-eastern residential cluster. The nearest turbine is 1.2 km south-west (T07).

Figure 9-22 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-22: Dwelling #609 context map

Figure 9-23 shows the existing view looking south through north from the driveway at the entrance to the dwelling.



Figure 9-23: Dwelling #609 – Existing view looking south through north

Figure 9-24 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-24: Dwelling #609 – TrueView image looking north-west (Source: OSMI Australia)

Figure 9-24 shows one turbine would be visible in a gap in vegetation when looking from the driveway.

Figure 9-25 shows a similar view looking northeast taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-25: Dwelling #609 – TrueView image looking northeast (Source: OSMI Australia)



Turbines will be visible through breaks in vegetation from select locations around the dwelling. The overall visual impact would be **Low-Moderate**.

If required, landscape mitigation may be possible however it would need to be implemented carefully and consider the BMO and planting distances from the dwelling.

## 9.2 Eastern Residential Cluster

The Eastern Residential Cluster landscape is characterized by cleared flat or slightly undulating farmland. Vegetation is generally limited to roadsides, wind breaks and creek lines.

The majority of residential dwellings to the east of the project sit within the Yinnar township or along Creamery Road closer to the proposed wind farm.

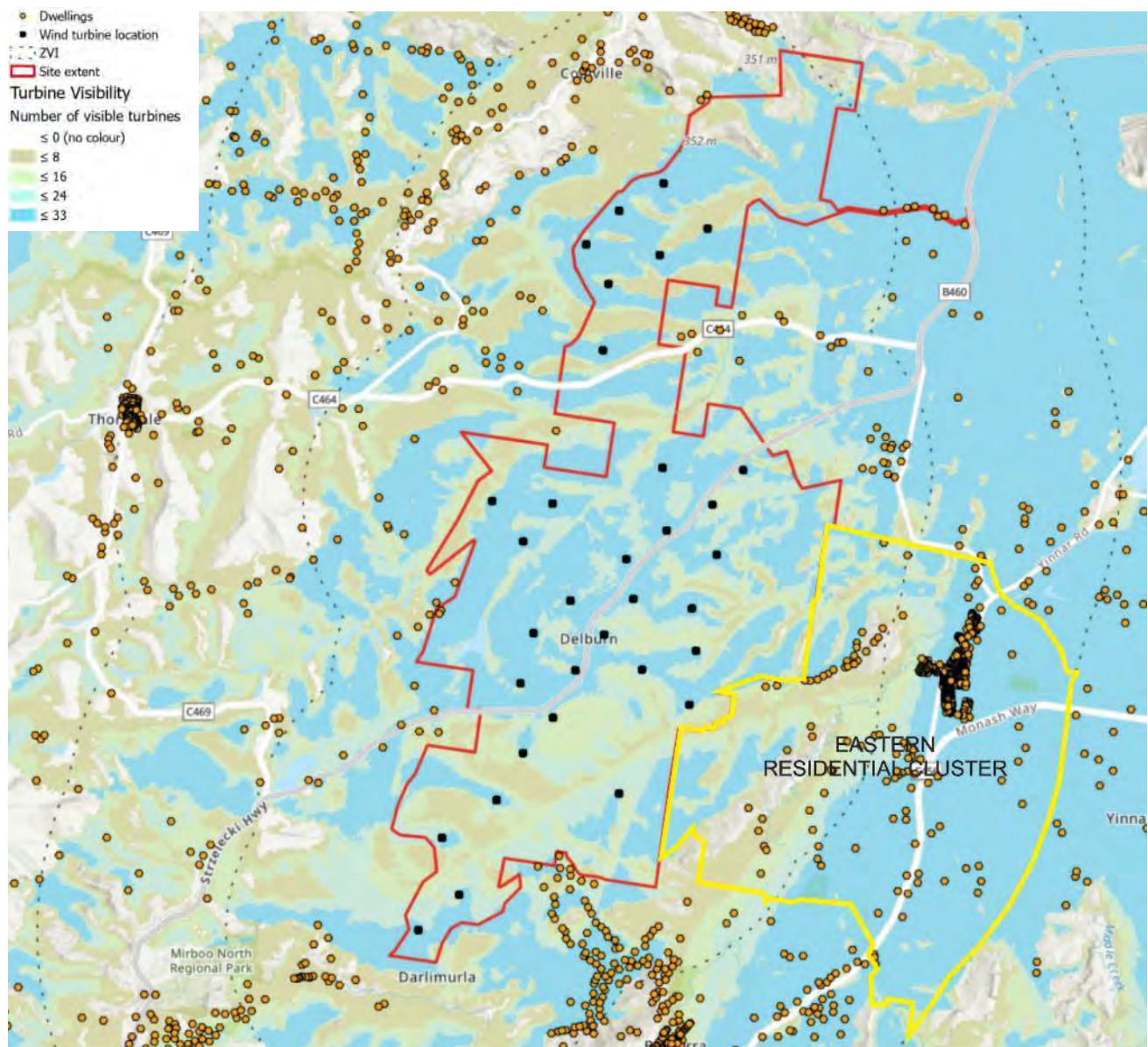


Figure 9-26: Eastern Residential Cluster

A number of residential dwellings have been visited in this cluster, several dwellings have provided their consent for the assessment of views and visual impact from their dwelling to be included within this assessment. These are assessed below.



### 9.2.1 Dwelling #686

Dwelling #686 is located within the Eastern residential cluster. The nearest turbine is approximately 4.0 km north-west (T16).

Figure 9-27 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.

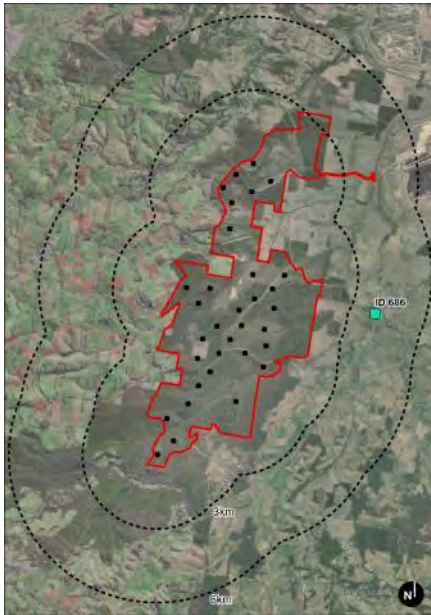


Figure 9-27: Dwelling #686 context map

Figure 9-28 shows the existing view looking west from the rear of the dwelling.



Figure 9-28: Dwelling #686 – Existing view looking west

Figure 9-29 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-29: Dwelling #686 – TrueView image looking west (Source: OSMI Australia)

Figure 9-30 shows a similar view looking north-west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-30: Dwelling #686 – TrueView image looking north-west (Source: OSMI Australia)

Several turbines would sit above the ridge and existing vegetation seen in the background from key areas within and around the dwelling. For these reasons, the overall visual impact would be **High**.

Mitigation efforts may be limited by topography. Mitigation will also remove views over Morwell River Valley and the elevated backdrop on which the turbines are sited.



### 9.2.2 Dwelling #749

Dwelling #749 is located within the Eastern residential cluster. The nearest turbine is approximately 3.0 km north-west (T16).

Figure 9-31 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-31: Dwelling #749 context map

Figure 9-32 shows the existing view looking north-west from the front of the dwelling.



Figure 9-32: Dwelling #749 – Existing view looking north-west from the front of the dwelling

Figure 9-33 shows a similar view looking north-west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-33: Dwelling #749 – TrueView image looking north-west (Source: OSMI Australia)

Figure 9-34 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-34: Dwelling #749 – TrueView image looking west (Source: OSMI Australia)

From in and around the dwelling views to turbines will be filtered or screened by existing vegetation in the front garden. As seen in Figure 9-33 during the winter months several deciduous trees will lose their leaves and several turbines may be visible from select angles in the front yard.

Figure 9-35 shows the existing view looking north-west from the driveway north of the dwelling.



Figure 9-35: Dwelling #749 – Existing view looking north-west from the driveway

Figure 9-36 shows a similar view looking north-west from driveway taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-36: Dwelling #749 – TrueView image looking north-west (Source: OSMI Australia)

Views to turbines from in and around the dwelling are limited by existing vegetation. The visual impact from these areas would therefore be assessed as **Low**. When travelling along the driveway before heading south to the entrance to the dwelling, turbines will be visible on top of the ridge to the north-west from a gap in roadside vegetation. From this location the visual impact would be **Moderate**.

Existing vegetation seen in the images above shows the ability for landscaping to be able to mitigate, filter and screen views to turbines from this location should it be required. Once established this would reduce the visual impact to **Low**.



### 9.2.3 Dwelling #1177

Dwelling #1177 is located within the Eastern residential cluster. The nearest turbine is approximately 2.3km north-west (T29).

Figure 9-37 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-37: Dwelling #1177 context map

The main entertaining area is to the south of the dwelling and orientated away from the Project over the dam.

Figure 9-38 shows the existing view looking west through north from the rear of the dwelling.



Figure 9-38: Dwelling #1177 – Existing view looking west through north

Figure 9-39 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-39: Dwelling #1177 – TrueView image looking west (Source: OSMI Australia)

Figure 9-40 shows the existing view looking west through north from the driveway at the front of the dwelling.



Figure 9-40: Dwelling #1177 – Existing view looking west through north

Figure 9-41 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-41: Dwelling #1177 – TrueView image looking west (Source: OSMI Australia)

Figure 9-42 shows a similar view looking north taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-42: Dwelling #1177 – TrueView image looking north (Source: OSMI Australia)

The main private open space areas are orientated to the south and south-east away from the Project. Tips of turbines may be visible above the ridge and existing vegetation seen in background of the views as you move around the property, however they would not sit in key views.

For these reasons, the overall visual impact would be **Low-negligible**.

#### 9.2.4 Dwelling #4533

Dwelling #4533 is located within the Eastern residential cluster. The nearest turbine is approximately 2.4km north-west (T18).

Figure 9-43 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-43: Dwelling #4533 context map

Key views from the dwelling are orientated south towards the valley.

Figure 9-44 shows the existing view looking north-west through northeast from the driveway at the front of the dwelling.



Figure 9-44: Dwelling #4533 – Existing view looking north-west through northeast

Existing topography and vegetation would screen views towards the Project. Turbines would not be visible from the dwelling. For these reasons, the overall visual impact would be **Nil**.



### 9.2.5 Dwelling #4579

Dwelling #4579 is located within the Eastern residential cluster. The nearest turbine is approximately 2.5km west (T18).

Figure 9-45 shows the approximate location of the proposed dwelling in relation to the wind farm.

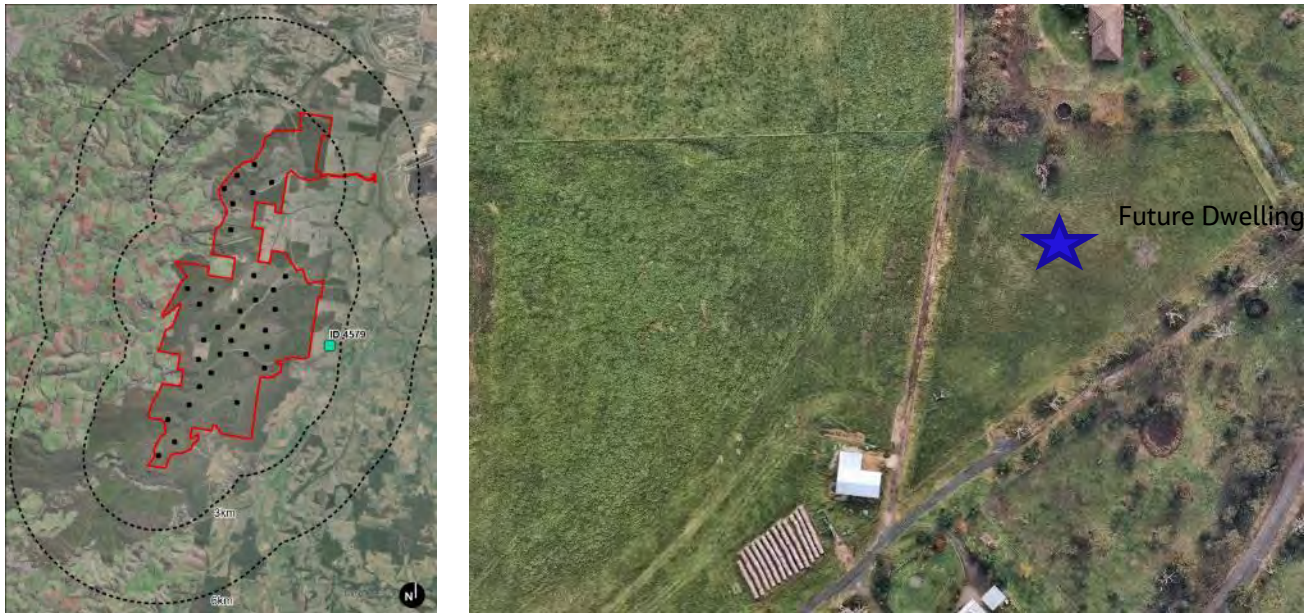


Figure 9-45: Dwelling #4579 context map

There is currently no dwelling on this property. A planning permit application has been lodged for a future dwelling and is therefore considered relevant for inclusion within this assessment.

Figure 9-46 shows the existing view looking west from the edge boundary of the proposed new dwelling.



Figure 9-46: Dwelling #4579 – Existing view looking

Figure 9-47 shows a similar view looking west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-47: Dwelling #4579 – TrueView image looking south-west (Source: OSMI Australia)

Figure 9-48 taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-48: Dwelling #4579 – TrueView image looking west (Source: OSMI Australia)

Figure 9-49 taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-49: Dwelling #4579 – TrueView image looking north-west (Source: OSMI Australia)

At the time of this assessment it is unclear what the main orientation and direction of the dwelling is. To be conservative we have taken the view looking south-west to north-west in the direction of the turbines.

Turbines would sit above the ridge and existing plantation to the south-west, west and north-west of this location.

For these reasons, the overall visual impact would be **High**.

The view could be mitigated; however, it would take away the view over pine plantation and nearby hills. Landscape mitigation could be designed to include tall clear trunked trees to filter turbines while keeping views to nearby paddocks through the underside of the trees.

### 9.3 South-eastern Residential Cluster

The South-eastern residential cluster is characterized by vegetated hills both natural and plantation. The majority of residential dwellings to the south-east lie within Boolarra township and the rural residential outskirts of the township to the north-west.

There is a large amount of vegetation within this area that will filter or screen most views. However, there will be a few areas where gaps in vegetation allow views to the Project.

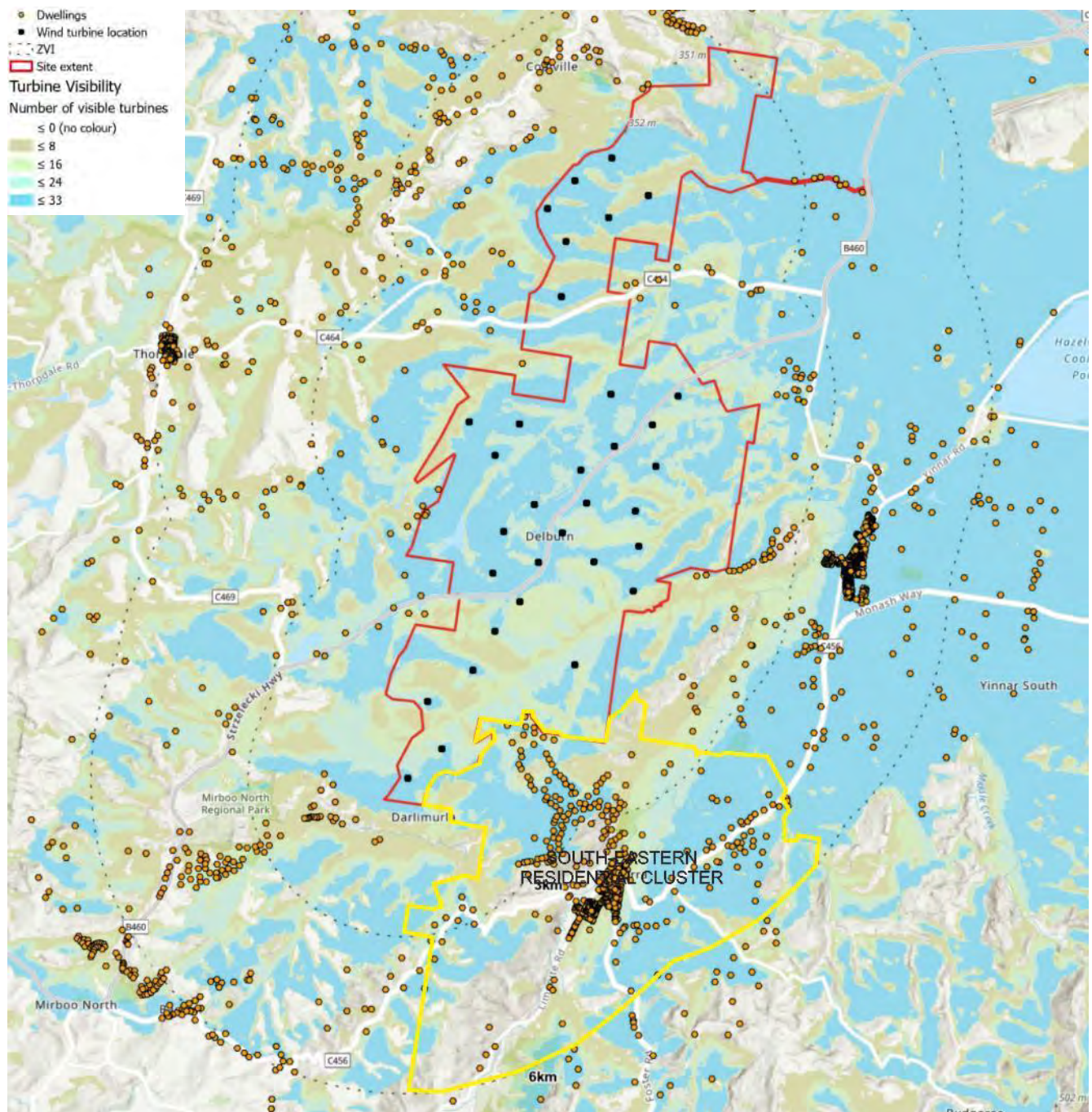


Figure 9-50: South-eastern Residential Cluster

A number of residential dwellings have been visited in this cluster, several dwellings have provided their consent for the assessment of views and visual impact from their dwelling to be included within this assessment. This is assessed below.



### 9.3.1 Dwelling #596

Dwelling #596 is located within the South-eastern residential cluster. The nearest turbine is approximately 2.7 km north-west (T32).

Figure 9-51 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-51: Dwelling #596 context map

Figure 9-52 shows the existing view looking west through north from the entertaining area at the rear of the dwelling.



Figure 9-52: Dwelling #596 – Existing view looking west through north

Figure 9-53 shows a similar view looking north taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-53: Dwelling #596 – TrueView image looking north (Source: OSMI Australia)

Existing vegetation will filter views to turbines from the entertaining area.

Figure 9-54 shows the existing view looking north from the edge of the pigsty approximately 25m north of the dwelling.



Figure 9-54: Dwelling #596 – Existing view looking north

Figure 9-55 shows a similar view looking north-west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-55: Dwelling #596 – TrueView image looking north-west (Source: OSMI Australia)

Figure 9-56 shows a similar view looking north taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-56: Dwelling #596 – TrueView image looking north (Source: OSMI Australia)

Existing vegetation and topography would filter or screen views from key areas of private open space around the dwelling. For these reasons, the visual impact would be **Negligible-Nil**.



### 9.3.2 Dwelling #600

Dwelling #600 is located within the South-eastern residential cluster. The nearest turbine is approximately 1.5 km west (T32).

Figure 9-57 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.

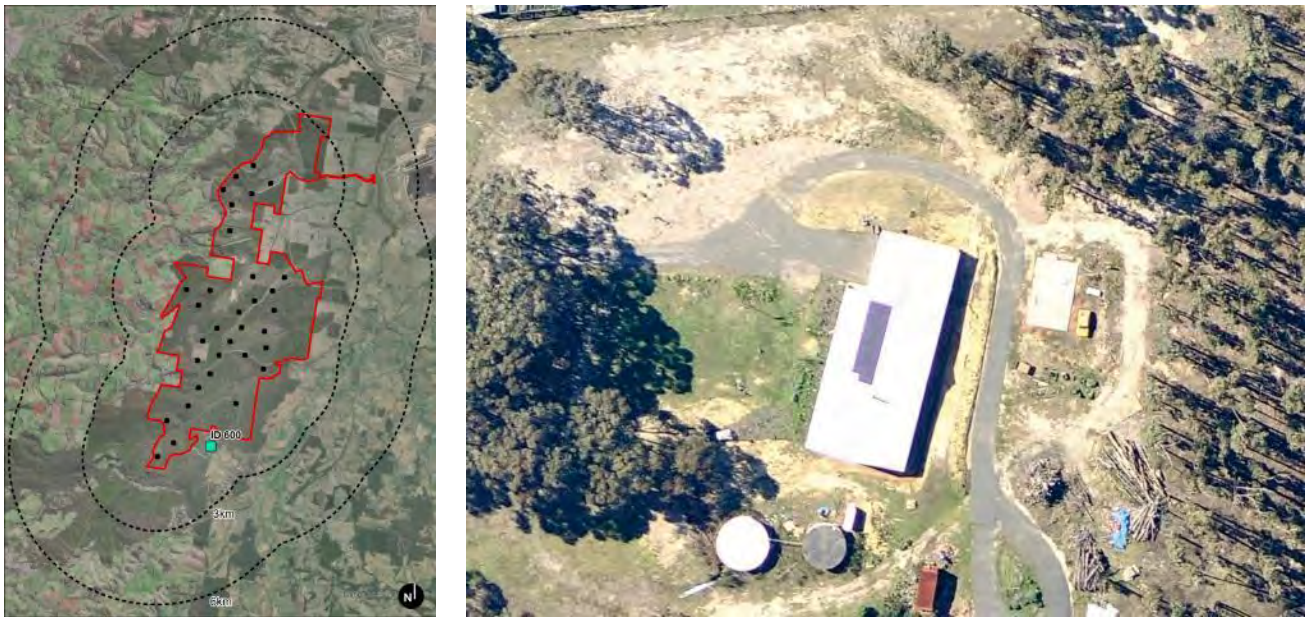


Figure 9-57: Dwelling #600 context map

Figure 9-58 shows the existing view looking west through north-west from the front of the dwelling.



Figure 9-58: Dwelling #600 – Existing view looking west through north-west

Figure 9-59 shows a similar view looking west from the driveway in front of the dwelling taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-59: Dwelling #600 – TrueView image looking west (Source: OSMI Australia)

Existing vegetation within the road reserve of Todds Road and within the property would filter views to the west.

Figure 9-60 shows a similar view looking north from the front of the dwelling taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-60: Dwelling #600 – TrueView image looking north (Source: OSMI Australia)

Main views from the dwelling to the west would be filtered by existing vegetation within the road reserve of Todds Road and on the property. However, views from the veranda and main entrance would include turbines to the north-west.

As the turbines do not reside in the primary view, the overall visual impact is considered to be **Low- Moderate** from the property. Views from the veranda would be **Moderate-High**.

The overall visual impact from this dwelling would be **Moderate**.

Mitigation may be possible however it would need to be implemented carefully and consider the BMO and planting distances from the dwelling.



### 9.3.3 Dwelling #4064

Dwelling #4064 is located within the South-eastern residential cluster. The nearest turbine is approximately 2.6 km north (T29).

Figure 9-61 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-61: Dwelling #4064 context map

Figure 9-62 shows the existing view looking north from the front of the dwelling.



Figure 9-62: Dwelling #4064 – Existing view looking north

Figure 9-63 shows a similar view looking north-west taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-63: Dwelling #4064 – TrueView image looking north-west (Source: OSMI Australia)

Figure 9-66 shows a similar view looking north taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-64: Dwelling #4064 – TrueView image looking north (Source: OSMI Australia)

Figure 9-65 shows the existing view looking north from the hill behind the dwelling.





Figure 9-65: Dwelling #4064 – Existing view looking north from the hill behind the dwelling

Figure 9-66 shows a similar view looking north from the hill behind the dwelling taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-66: Dwelling #4064 – TrueView image looking north (Source: OSMI Australia)

Views of turbines from around the dwelling would be filtered or screened by vegetation from views. Blades of several turbines may be visible above the ridge and existing vegetation seen in background of the views as you move around the property, however they would not sit in key views.

For these reasons, the overall visual impact would be **Low**.

It is unlikely mitigation would be possible to screen the blades of these several turbines due to the elevated nature of the view and the slope of the topography away from the view. Mitigation if considered, would need to be implemented carefully and consider the BMO.

### 9.3.4 Dwelling #4585

Dwelling #4585 is located within the South-eastern residential cluster. The nearest turbine is approximately 2.1 km north-west (T32).

Figure 9-67 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-67: Dwelling #4585 context map

Figure 9-68 shows the existing view looking north-west from the entertainment area on the northern side of the dwelling.



Figure 9-68: Dwelling #4585 – Existing view looking north

Figure 9-69 shows a similar view looking north taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-69: Dwelling #4585 – TrueView image looking north (Source: OSMI Australia)

Figure 9-70 shows a similar view looking northeast taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-70: Dwelling #4585 – TrueView image looking northeast (Source: OSMI Australia)

Tips and blades of several turbines would be visible above existing vegetation as you move around the dwelling and from the key entertaining area on the northern edge of the dwelling. For these reasons, the overall visual impact would be **Moderate**.

Landscape mitigation is unlikely to be effective from this dwelling location, due to the timeframe to achieve the vegetation heights required to filter views to the blades visible above the existing vegetation.



## 9.4 South-western Residential Cluster

The South-western residential cluster is characterized by vegetated hills both natural and plantation. The majority of residential dwellings to the south-west lie within Darlimurla and Mirboo North.

There is a large amount of vegetation within this area that will filter or screen most views. There are not many areas where gaps in vegetation will allow views to the project.

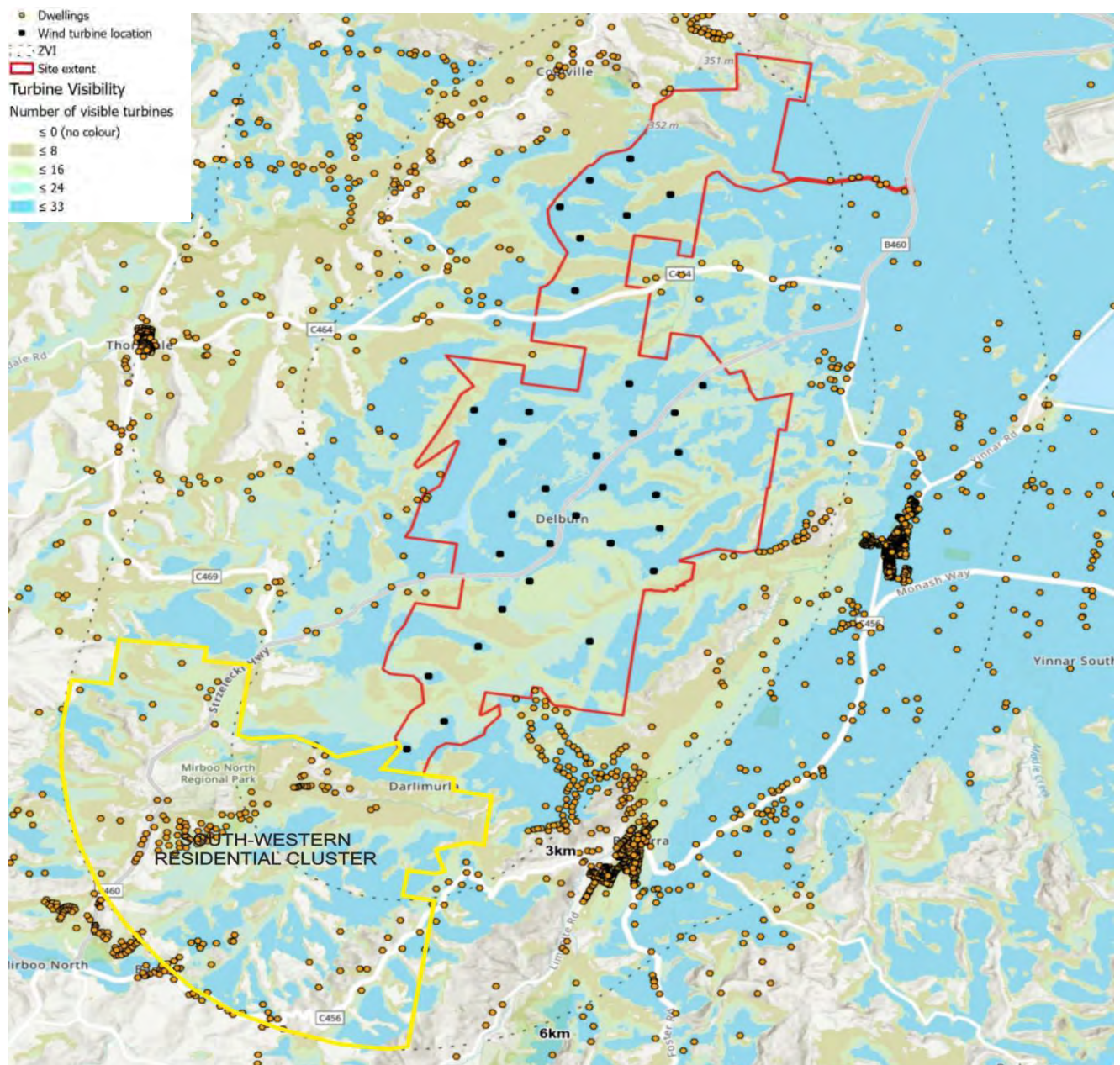


Figure 9-71: South-western Residential Cluster

A number of residential dwellings have been visited in this cluster, no dwellings have provided their consent for the assessment of views and visual impact from their dwelling to be included within this assessment.

It is clear from the SAA above there would be limited visibility for the majority of these dwellings, shown as white or light green. This is further demonstrated by the local road viewpoint L14 in Section 8.5 which shows the nature and scale of views within this area of Darlimurla.



Figure 8-70 shows a wireframe view of Local Road Viewpoint L14 the “Concept Layout” (V1.5, being 53 wind turbines). The wireframe view shows that the proposed wind turbines would be largely screened by topography and vegetation. From some locations, the tip of a turbine blade may be visible above vegetation.



Figure 9-72: Viewpoint L14 – Wireframe of Concept Layout (V1.5, being 53 wind turbines)

There may be glimpses of parts of turbines, where gaps in vegetation allow. However, due to existing topography and vegetation the turbines will be barely visible and from limited locations.

## 9.5 Western Residential Cluster

The Western Residential Cluster is characterised by rolling hills, and extensive roadside vegetation and trees within the pine plantations of the Project. Views in this location tend to be more dramatic due to the regular closing and opening up of views across the landscape permitted by topography and vegetation.

The majority of dwellings are located within the townships of Thorpdale with scattered dwellings in Delburn.

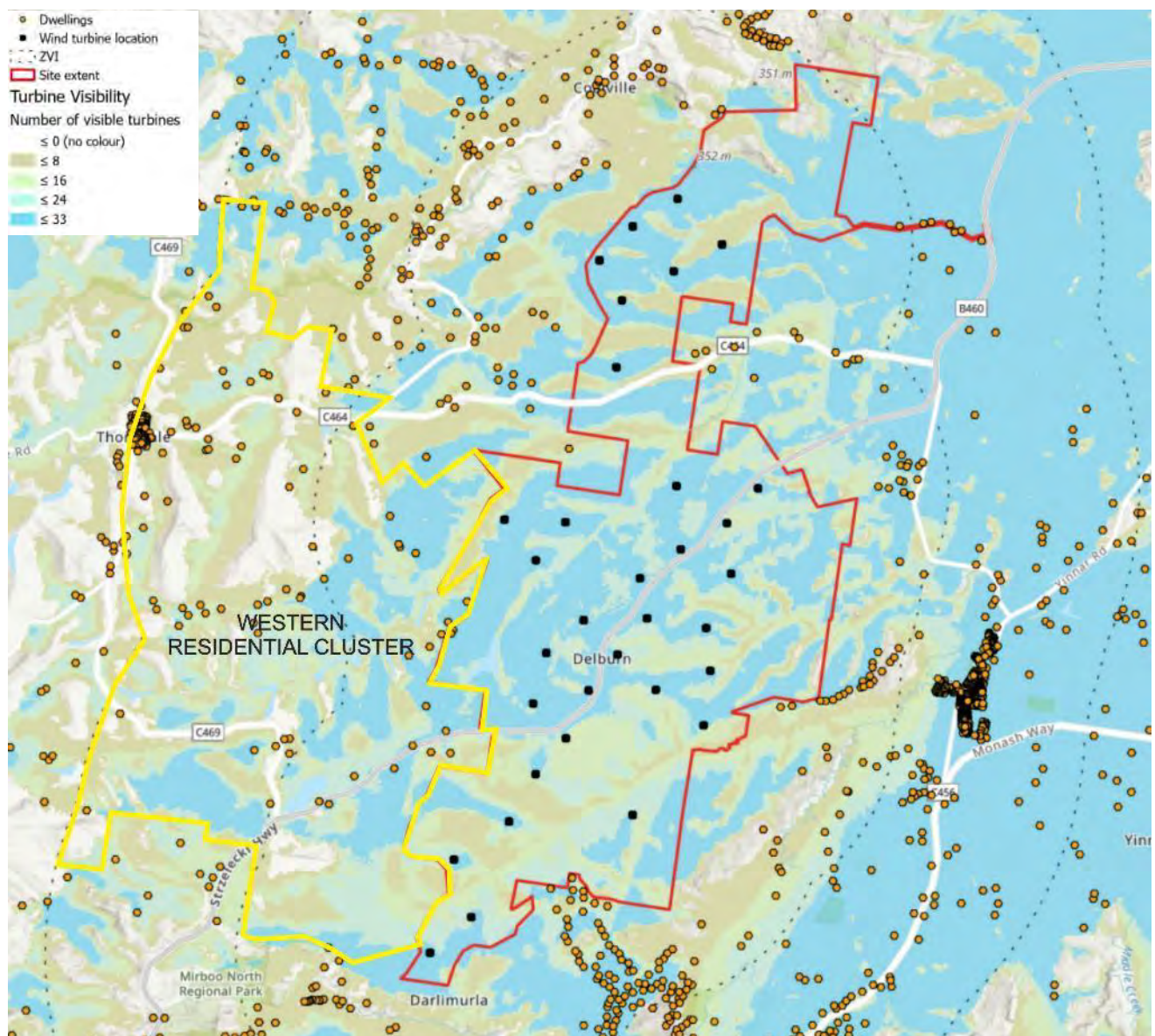


Figure 9-73: Western Residential Cluster

A number of residential dwellings have been visited in this cluster, several dwellings have provided their consent for the assessment of views and visual impact from their dwelling to be included within this assessment. These are assessed below.



### 9.5.1 Dwelling #824

Dwelling #824 is located within the Western residential cluster. The nearest turbine is approximately 1.4 km northeast (T21).

Figure 9-74 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-74: Dwelling #824 context map

Figure 9-75 shows the existing view looking east from the rear of the dwelling.



Figure 9-75: Dwelling #824 – Existing view looking east

Figure 9-76 shows a similar view looking east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-76: Dwelling #824 – TrueView image looking east (Source: OSMI Australia)

Figure 9-77 shows a similar view looking south-east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-77: Dwelling #824 – TrueView image looking south-east (Source: OSMI Australia)

Several turbines would be visible to the east above the existing ridge and vegetation shown central to the view in Figure 9-76. Views to the south-east and northeast would be filtered by existing vegetation.

For these reasons, the overall visual impact would be **Moderate-High** without mitigation.

From this location, mitigation would be possible as shown by existing vegetation within the view. The resultant visual impact would be **Low-Moderate**.



### 9.5.2 Dwelling #832

Dwelling #832 is located within the Western residential cluster. The nearest turbine is approximately 1.2 km north-west (T25).

Figure 9-78 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-78: Dwelling #832 context map

Figure 9-79 shows the existing view looking east from the front entrance to the dwelling.

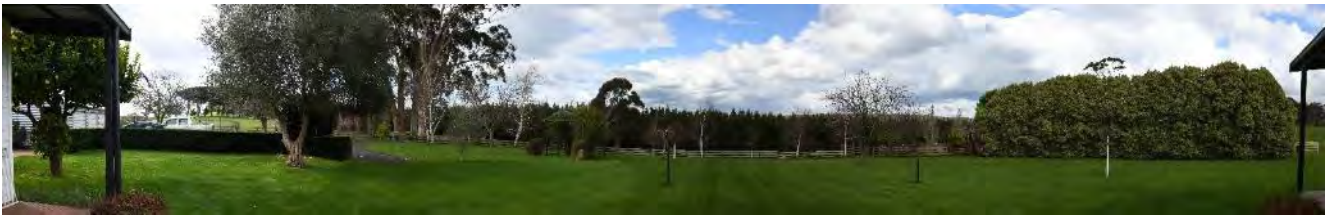


Figure 9-79: Dwelling #832 – Existing view looking east

Figure 9-80 shows a similar view looking east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-80: Dwelling #832 – TrueView image looking east (Source: OSMI Australia)

Turbines would be visible above the existing plantation vegetation seen in Figure 9-80. As the plantation continues to grow this will assist to further filter views to turbines.

Figure 9-81 shows a similar view looking northeast taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-81: Dwelling #832 – TrueView image looking northeast (Source: OSMI Australia)

Existing vegetation within the front garden of the dwelling filters views to turbines in the northeast.



Figure 9-82 shows a similar view looking north from the front entrance taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-82: Dwelling #832 – TrueView image looking north (Source: OSMI Australia)

Turbines would be visible above the existing plantation vegetation in views to the east. As the plantation continues to grow this will assist to further filter views to turbines. Existing vegetation within the frontage would filter views to the north and northeast. For these reasons, the overall visual impact would be **Moderate**.

Existing vegetation shown within the views, indicates landscape mitigation would assist in filtering views if required. Once established, this would reduce the visual impact to the **Low-Negligible**.

## 9.6 North-western Residential Cluster

The North-western residential cluster is characterized by vegetated hills both natural and plantation. The majority of residential dwellings to the north-west lie around the townships of Narracan and Coalville.

There is an extensive amount of vegetation within this area that will filter or screen most views.

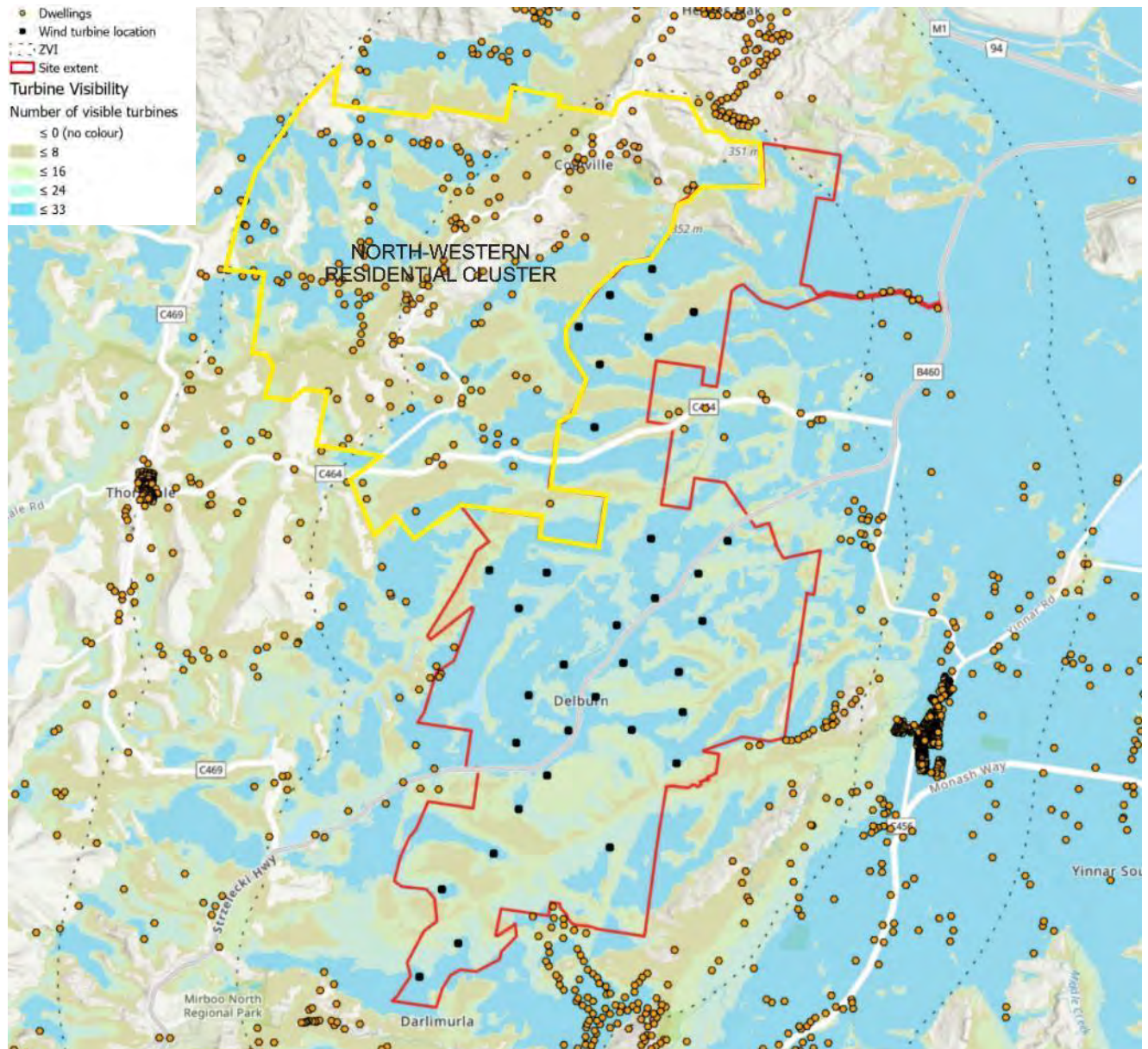


Figure 9-83: North-western Residential Cluster

A number of residential dwellings have been visited in this cluster, several dwellings have provided their consent for the assessment of views and visual impact from their dwelling to be included within this assessment. These are assessed below.



### 9.6.1 Dwelling #23

Dwelling #23 is located within the North-western residential cluster. The nearest turbine is approximately 4.4 km south-east (T05).

Figure 9-84 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-84: Dwelling #23 context map

Figure 9-85 shows the existing view looking south-east from the main deck.



Figure 9-85: Dwelling #23 – Existing view looking south-east from main deck

Figure 9-86 shows a similar view looking south-east from the main deck taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-86: Dwelling #23 – TrueView image looking south-east (Source: OSMI Australia)

Views from the balcony include turbines at the northern end of the Project. Turbines within the central and southern portions of the wind farm would be screened by existing vegetation, topography and other parts of the dwelling as seen to the right of the figure above.

Figure 9-87 shows the existing view looking south-east from the master bedroom balcony.



Figure 9-87: Dwelling #23 – Existing view looking south-east from master bedroom balcony

Figure 9-88 shows a similar view looking south-east from the master bedroom balcony taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-88: Dwelling #23 – TrueView image looking south-east from master bedroom balcony (Source: OSMI Australia)

Views from key private open space areas includes turbines at the northern end of the Project. Turbines within the central and southern portions of the wind farm would be screened by existing vegetation and topography seen to the right of the figure above.

The overall visual impact would be **High** due to the proximity of turbines in several key views and locations and areas of private open space in proximity to the dwelling.

Due to the elevated nature of views from the dwelling and the deck and the topography which falls away from the dwelling in directions of the turbines these views would be challenging to mitigate. Landscape mitigation is unlikely to be effective from this dwelling location and would also alter or remove views across the valley.

### 9.6.2 Dwelling #849

Dwelling #849 is located within the North-western residential cluster. The nearest turbine is approximately 1.6 km northeast (T07).

Figure 9-89 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-89: Dwelling #849 context map

Figure 9-90 shows the existing view looking east from the deck at the rear of the dwelling.

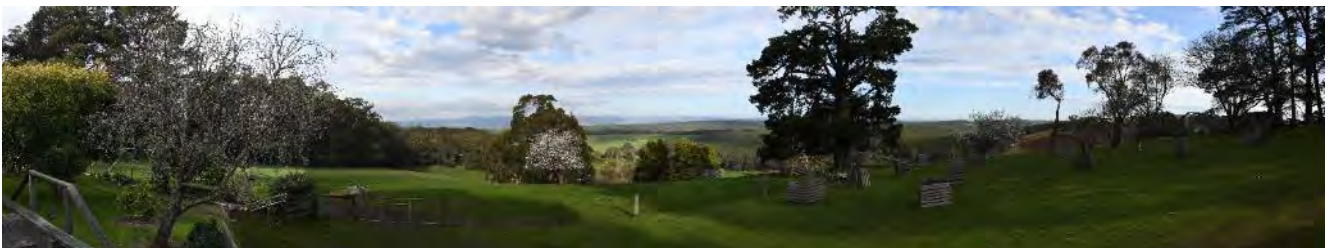


Figure 9-90: Dwelling #849 – Existing view looking east

Figure 9-91 shows a similar view looking east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-91: Dwelling #849 – TrueView image looking east (Source: OSMI Australia)

Views to the northeast and the turbines to the north of the Project would be filtered by existing vegetation seen to the left of the image above. Turbines in the central part of the Project would be visible above the existing plantation.

Figure 9-92 shows a similar view looking south-east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-92: Dwelling #849 – TrueView image looking south-east (Source: OSMI Australia)

Several turbines in the southern section of the Project would be visible in gaps in vegetation seen to the right of the image above. Senescing Cypress will expose additional views over time to other turbines in the southern section of the Project as it is nearing the end of its useful life.

Views to the northeast and the turbines to the north of the Project would be filtered by existing vegetation seen to the left of the image above. Turbines in the central and southern part of the Project would be visible above the existing plantation.

The overall visual impact would be **High** due to the proximity of turbines in several key views from areas of private open space in proximity to the dwelling.

Due to the elevated nature of views from the dwelling and the deck and the topography which falls away from the dwelling in directions of the turbines these views would be challenging to mitigate. Landscape mitigation is unlikely to be effective from this dwelling location.



### 9.6.3 Dwelling #857

Dwelling #857 is located within the North-western residential cluster. The nearest turbine is approximately 1.9 km south-east (T07).

Figure 9-93 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-93: Dwelling #857 context map

Figure 9-94 shows the existing view looking northeast from the front of the dwelling.



Figure 9-94: Dwelling #857 – Existing view looking northeast

Figure 9-95 shows a similar view looking northeast taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-95: Dwelling #857 – TrueView image looking northeast (Source: OSMI Australia)

Turbines in the northern section of the Project would be visible as moving around the frontage of the dwelling. Views from the front door above show turbines will be partially filtered or screened by existing vegetation.

Figure 9-96 shows the existing view looking east from the rear of the dwelling.



Figure 9-96: Dwelling #857 – Existing view looking east

Figure 9-97 shows a similar view looking east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-97: Dwelling #857 – TrueView image looking east (Source: OSMI Australia)

One turbine would be visible oblique to the main view to the south of the dwelling. Existing vegetation shown in the figure above will continue to grow and will filter views to this turbine.

Turbines to the south will not be visible due to topography and existing vegetation.

Turbines in the northern section of the Project would be visible as you are moving around the frontage of the dwelling. Views from the front door show turbines will be partially filtered or screened by existing vegetation.

Turbines are generally oblique to the main views. For these reasons, the overall visual impact would be **Low-Moderate**.

Several turbines are filtered by existing vegetation and can be screened which would reduce the visual impact to **Low-Negligible**.

#### 9.6.4 Dwelling #867

Dwelling #867 is located within the North-western residential cluster. The nearest turbine is approximately 1.5 km south-west (T05).

Figure 9-98 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-98: Dwelling #867 context map

Figure 9-99 shows the existing view looking south-east from the rear of the dwelling.



Figure 9-99: Dwelling #867 – Existing view looking south-east

Figure 9-100 shows a similar view looking south-east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.





Figure 9-100: Dwelling #867 – TrueView image looking south-east (Source: OSMI Australia)

Several turbines would be visible to the south-east above the existing ridge and vegetation shown central to the view above.

Figure 9-101 shows a similar view looking east taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-101: Dwelling #867 – TrueView image looking east (Source: OSMI Australia)

Turbines to the north of the Project would be filtered by existing vegetation shown to the left of the view above.

Several turbines would be visible to the south-east above the existing ridge and vegetation shown central to the view above.

For these reasons, the overall visual impact would be **Moderate-High** without mitigation.

From this dwelling, mitigation would be possible. One option would be to plant a copse of trees just off the boundary in the paddock to filter views to visible turbines. Another option would be to plant taller shrubs that would be quicker to establish than the copse of trees. Figure 9-100 and Figure 9-101 indicate that existing shrub heights would filter views to turbines.

The resulting visual impact after mitigation would be **Low-Moderate**.



### 9.6.5 Dwelling #1266

Dwelling #1266 is located within the North-western residential cluster. The nearest turbine is approximately 2.5km south-east (T05).

Figure 9-102 shows the location of the dwelling in relation to the wind farm and the arrangement of the dwelling and any existing vegetation or structures within close proximity to the dwelling.



Figure 9-102: Dwelling #1266 context map

Figure 9-103 shows a view looking east from the front yard taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-103: Dwelling #1266 – TrueView image looking east (Source: OSMI Australia)



Figure 9-104 shows a similar view looking east from the from yard where a gap in vegetation allows views towards turbines, taken by OSMI using the TrueView imagery which shows the approximate scale and placement of the nearest turbines in the context of the view.



Figure 9-104: Dwelling #1266 – TrueView image looking east (Source: OSMI Australia)

Potential for several tips of turbines to be visible above the ridgeline and existing vegetation at the back of the view above. These views are not from key private open space.

For these reasons, the overall visual impact would be **Low-Negligible**.

Vegetation shown within the TrueView imagery indicates that if required landscape mitigation would be successful.



## 9.7 Northern Residential Cluster

The Northern residential cluster is characterized by vegetated hills both natural and plantation. The majority of residential dwellings to the north lie within the townships of Hernes Oak and Moe south.

There is a large amount of vegetation within this area that will filter or screen most views. Not many areas exist where gaps in vegetation will allow views to the Project. If there are views, they include existing power and transmission infrastructure.

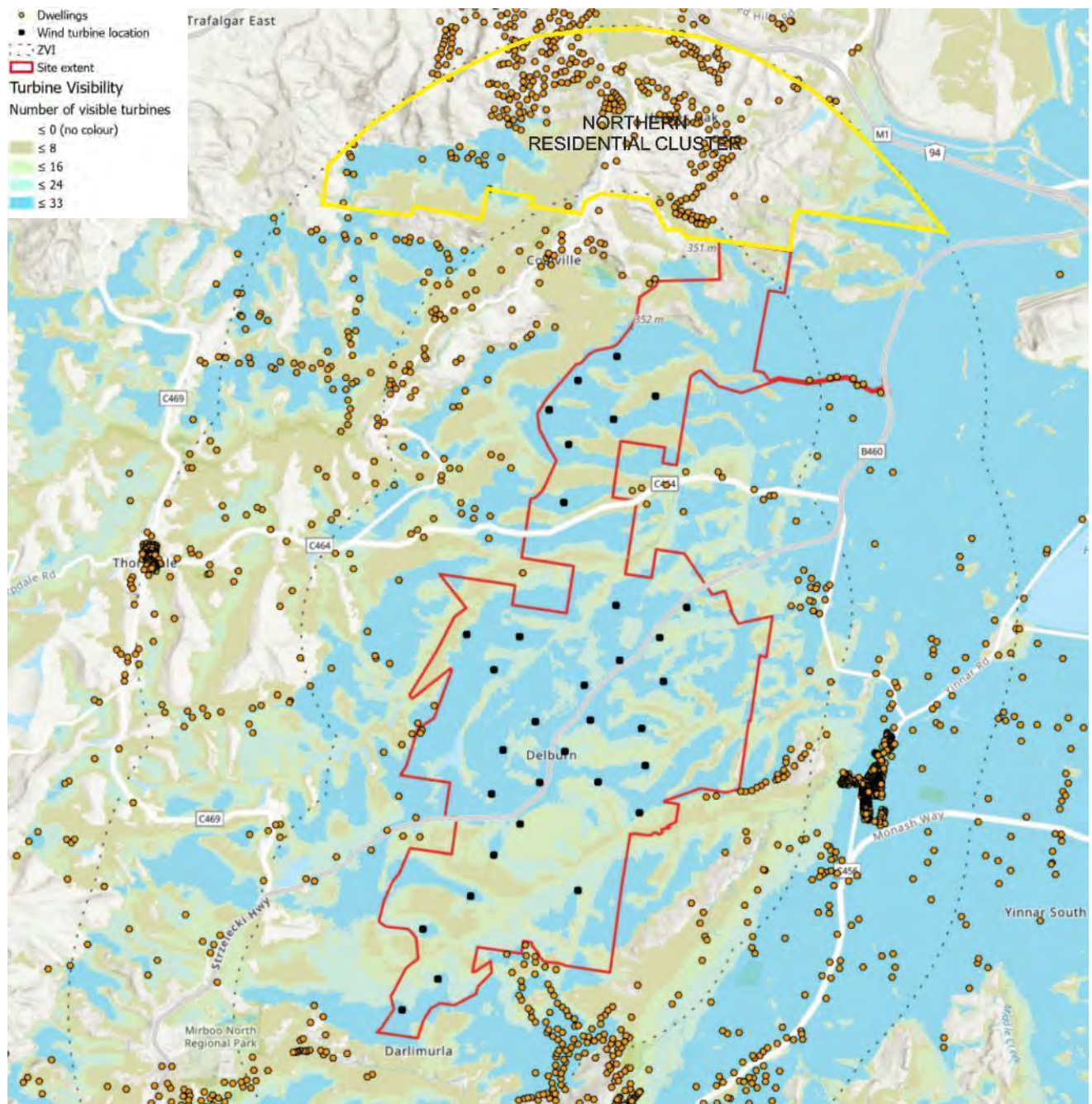


Figure 9-105: Northern Residential Cluster

No residential dwellings have been visited in the northern residential cluster. Distance to nearest turbines, topographical variation mean that a large number of dwellings wouldn't have visibility, based on topography alone. This is demonstrated both in visual assessment from publicly assessable locations at Viewpoint L22, 23 and 24 in Section 8.5 and the SAA models shown above.

## 9.8 Residential Viewpoint Summary

Of the dwellings visited 20 residents gave permission for their dwelling to be included within this assessment. Table 9-2 summarised the findings of these 20 dwellings.

Table 9-2: Residential Assessment Summary

Dwelling ID	Location	Distance to nearest turbine	Visual Impact Assessment	Landscape Mitigation
Dwelling #23	North-western Cluster	4.4km SE (T05)	High	Unlikely to be mitigated
Dwelling #596	South-eastern Cluster	2.7km NW (T32)	Negligible-Nil	Not likely required
Dwelling #600	South-eastern Cluster	1.5km W (T32)	Moderate	Mitigation possible, however must be implemented carefully and consider the BMO
Dwelling #607	North-eastern Cluster	1.7km SE (T16)	High	Unlikely to be mitigated
Dwelling #608	North-eastern Cluster	1.6km NW (T02)	High	Views to the north unlikely to be mitigated. Mitigation possible to the south, however, would need to be implemented carefully and consider the BMO.
Dwelling #609	North-eastern Cluster	1.2km SW (T07)	Low-Moderate	Mitigation not likely required, however must be implemented carefully and consider the BMO
Dwelling #686	Easter Cluster	4.0km NW (T16)	High	Mitigation may be limited due to topography and would remove views
Dwelling #749	Eastern Cluster	3.0km NW (T19)	Low-Moderate	Mitigation possible
Dwelling #824	Western Cluster	1.4km NE (T21)	Moderate-High	Mitigation possible
Dwelling #832	Western Cluster	1.2km NE (T25)	Moderate	Mitigation possible
Dwelling #849	North-western Cluster	1.6km NE (T07)	High	Unlikely to be mitigated
Dwelling #857	North-western Cluster	1.9km SE (T07)	Low-Moderate	Mitigation possible
Dwelling #867	North-western Cluster	1.5km SE (T05)	Low-Moderate	Mitigation possible
Dwelling #1177	Easter Cluster	2.3km NW (T29)	Low-Negligible	Not likely required
Dwelling #1266	North-western Cluster	2.5km SE (T05)	Low-Negligible	Mitigation possible
Dwelling #4064	South-eastern Cluster	2.6km N (T29)	Low	Unlikely to be mitigated
Dwelling #4533	Easter Cluster	2.5km W (T18)	Nil	Not required
Dwelling #4579	Easter Cluster	2.4km NW (T18)	High	Mitigation possible, however must be implemented carefully and consider BMO
Dwelling #4585	South-eastern Cluster	2.1km NW (T32)	Moderate	Unlikely to be mitigated



Dwelling ID	Location	Distance to nearest turbine	Visual Impact Assessment	Landscape Mitigation
Dwelling #4587	North-eastern Cluster	1.8km S (T16)	Low-Moderate	Landscape Mitigation possible

The SAA shows that there is greater visibility for areas east in the clear flat plain of Hazelwood and Yinnar. For those areas to the north of the project, visibility is largely defined by topography, which has shown a large number of dwellings will have little to no visibility at all. Further, this analysis shows that although there are a number of residential dwellings within 6km of a turbine, actual visibility and visual impact varies greatly across the project.

The greatest potential for visual impacts to be brought about by the project relates to individual residential dwellings located in close proximity to the Project. Views from these areas are equally as diverse to the west where views and resulting visual impact changes drastically. Views from some dwellings will have a high level of visual impact next to neighbouring dwellings that are also in close proximity and will have no turbine visibility. This is due to topography of the landscape in which the dwellings are located, the orientation and vegetation both within the private realm and in proximity to the dwelling as well as vegetation in the surrounding landscape.

As with the views from local roads, residential clusters vary greatly within the viewshed depending on location and proximity to the Project.

Areas to the west tend to be more confined due to the rolling hills, and extensive roadside vegetation and trees within the pine plantations of the Project. Views in this location tend to be more dramatic due to the regular closing and opening up of views across the landscape permitted by topography and vegetation.

Views from the south-west would be dependent on the visibility of turbines. This would be influenced by topography and vegetation and the context of the view where turbines are visible.

The range and nature of residential views will be dependent on the proximity and orientation of the dwelling towards the Project. For dwellings in the more elevated and hilly locations to the west, south and south-east of the Project, visibility will be further influenced by the orientation of the hillside and its proximity to the Project.