12 February 2021



## Further Report on behalf of the applicant following Council Resolution of 27 January 2021

Application for Planning Permit PLN/2020/165

Land: Reserve on Plan of Subdivision 111376, 198 Mount Gisborne Road GISBORNE VIC 3437

Proposal: Develop a telecommunications facility and removal of native vegetation (temporary impact to native grasses)

Dear Madam Mayor and Councillors,

The above application was considered by Council at its Ordinary meeting on 27 January 2021 where the matter was deferred to provide the applicant with the opportunity to submit additional information.

The information is to be provided in the form of a report which address the following:

- 1. A better report about why the Mt Gisborne site is considered preferable to other sites;
- 2. Consideration of alternative sites for the location of the proposed telecommunications tower including but not limited to:
  - a) Mount Aitken
  - b) Other sites in Gisborne South;
  - Other less environmentally sensitive sites, either on temporary or permanent basis;
- 3. Consideration of co-locating with a new or existing telecommunication facility with another organization in Gisborne South.

These matters are addressed as follows however, it is important to understand that the primary purpose of the re instatement of the existing tower is to provide telemetry communication for Western Water control systems to operate water and sewer infrastructure, it also provides safety functionally for man down for Western Water staff as well as providing a similar function for the CFA .

It is a piece of communications infrastructure that is important for Essential Services communication only.

#### 1. Why Mount Gisborne?

For Western Water, Mount Gisborne provides the line of site required for microwave radio connections from Jacksons Hill to Mount Gisborne and then Mount Gisborne down to the Disaster Recovery Centre a Rosslynne WFP in Gisborne.

For the CFA, it provides a connection from the Incident Control Centre/Fire Station in Gisborne back up to Mount Gisborne.





In addition to this, the VHF and UHF radios at Mount Gisborne combine into these microwave links to enable lifesaving functionality.

It is clear that the previous tower on Mount Gisborne was initially placed there, due to the elevation and positioning in the area to maximize communications coverage.

Mount Gisborne is a good elevated peak set back off the main range line of the Macedon ranges providing 360deg views of most of Western Waters assets and service area.

No other site investigated was able to provide the extensive coverage required by this Essential Service Critical Communication Infrastructure.

In many instances, especially for Western Water, Telemetry to infrastructure has evolved as a result of Mount Gisborne's pivotal location. Moving form Mt Gisborne as a central communications hub will have knock on effect for many other sites across WW reducing reliability and introducing operational risk.

There are a number of sites that are key in Western Water Operations including Jacksons Hill in Sunbury, The Disaster Recovery Centre in Gisborne and Main Radio base stations in Woodend and Mt Macedon.

To operate properly, a central site needs to "see" all of these sites and this applies equally to the CFA needs.

Based upon the review of alternatives, it was concluded that Mount Gisborne is the site that can do this.

The site contains existing infrastructure, power and a communications hut on the boundary of the adjoining property which contains existing radios. The existing foundation remains is place and is proposed to be utilized for the new tower. Preliminary assessments have indicated that the foundation is fit for purpose and detailed structural testing will be undertaken prior to placement of the tower.

Mitigation measures during construction are outlined in the detailed Vegetation Impact Assessment report prepared by Atlas Ecology, who also authored the Mount Gisborne access management plan in 2018 and the Mount Gisborne Environmental Management plan 2013. Atlas Ecology were selected to undertake this work based upon their detailed understanding and interest in the protection of the environmental values on the site.

The proposal has been designed to have impacts mitigated to the absolute minimum possible to reinstate this piece of infrastructure.

Beyond construction, vehicle access the site is under the full control of the Macedon Ranges Shire Council as neither Western Water or CFA can access the site by vehicle without Council consent.





#### 2. Alternate Sites

A number of sites were investigated. and are outlined in the table below. It should be noted that other than the site at 260 Mount Gisborne Road and Mount Aitken, there were no other identified sites south of Gisborne that could meet the elevation and visibility requirements.

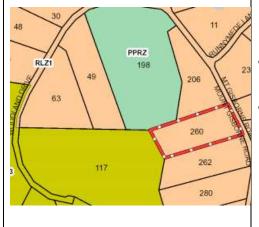
| SITE                          | SUITABILITY FOR WW   | SUITABILITY<br>FOR CFA   | RADIO PATH CROSS<br>SECTION  | ZONING                           |
|-------------------------------|--|--|--|----------------------------------|
| MOUNT AITKEN  PPRYount Aitken | Null line of site to Disaster recovery site, Jacksons Hill, link base radios     Reduced area coverage for other services     Power supply issues     Visual impacts | <ul> <li>Null line of site to Gisborne ICC</li> <li>Reduced area coverage for other services</li> <li>Power supply issues</li> <li>Visual Impacts</li> </ul> | Mt Aitken to Disaster Recovery Centre in Gisborne  ADACore × Radio Path Study  Distance: 8.5 (km)  Solution of the property of | PPRZ SLO2 (peak of Mount Aitken) |







# **260 Mount Gisborne Road Gisborne south** (adjoining property to the south)



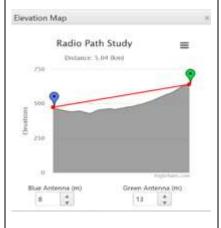
## • Landowner does not consent

- Line of site Null too Jacksons hill & Disaster recovery site at Rosslynne WFP
- Reduced area Coverage for other services
- PTP Link radio's to Woodend and Jackson's Hill would need a significant height for the mast -30 meters rather than the 12 meters proposed.
- Even with a higher mast, Mt. Gisborne would create a communication shadow for operation sites to the west and north west.
- Extensive Trenching for Power & Comms
- Visual Impact given height of the

## Landowner does not consent

- Reduced area Coverage for other services
- Extensive Trenching for Power & Comms
- Visual Impact

#### Adjacent property to Jacksons Hill Master RTU in Sunbury



RLZ1

SLO2

Part ESO5







|   | tower and views<br>from Counagalt<br>Road towards<br>Mount Gisborne. |  |   |  |
|---|--|--|---|--|
| Mount Macedon  Mount Macedon  Mount Towrong | in Mt Macedon  Black spot issues around Gisborne                     | Black spot issues around Gisborne Standby power time Would need to be co located on an existing facility which means limited control over the asset, limited access to the asset and physical and cyber security issues. | Mt Macedon to McDonalds tank base Mt Macedon  Elevation Map  Radio Path Study  Distance: 5.04 (km)  250  Blue Antenna (m)  8  Green Antenna (m)  13 | PPRZ – Public<br>Parks and<br>Conservation<br>Zone |





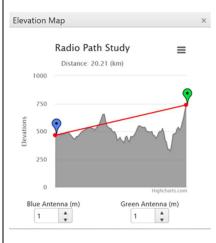


# Mount Blackwood FZ Mount Blackwood

- Null line of site to disaster recovery centre in Gisborne
- Reduced area coverage to sitesdata
- Reduced area coverage to sited Voice
- RF Issues caused by distance to operational areas
- Effect of snow on comm's more severe than Mount Gisborne
- Standby power issues
- Would need to be co located on an existing facility which means limited control over the asset, limited access to the asset and physical and cyber security issues.

- Null line of site to Gisborne ICC
- Reduced area coverage to sites- data
- Reduced area coverage to sited – Voice
- RF issues caused by distance to operational areas;
- Standby power issues
- Would need to be co located on an existing facility which means limited control over the asset, limited access to the asset and physical and cyber security issues.

### Mount Blackwood to Distaster Recovery Centre Gisborne



FΖ

Western Water ABN 67 433 835 375
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WesternWater.com.au





| Magnet Hill New Gisborne                | • | Null line of site to | • | Reduced area                            |                                    |               |
|---|---|----------------------|---|---|------------------------------------|---------------|
|   |   | Jacksons Hill        |   | coverage to                             | Magnet Hill to Jacksons Hill       | RLZ2 – Rural  |
|   | • | Reduced area         |   | Southern sites -                        |                                    | Living Zone 2 |
|   |   | coverage to          |   | Data                                    | Elevation Map                      |               |
|   |   | southern site -      | • | Reduced area                            |                                    | SL02 -        |
|   |   | data                 |   | coverage to                             | Radio Path Study                   | Significant   |
|   | • | Reduced area         |   | southern site -                         | Distance: 18.08 (km)               | Landscape     |
|   |   | coverage to          |   | voice                                   | 600                                | Overlay       |
|   |   | southern site -      | • | Insufficient                            |                                    | ,             |
|   |   | voice                |   | power supply.                           | 400                                | DCPO -        |
|   | • | Visual impact        | • | • • • • •                               | Elevation                          | Development   |
| Magned HIII                             |   | issues to            |   | issues to                               | 300                                | Contributions |
|   |   | surrounding          |   | surrounding                             | 200                                | Plan Overlay  |
| RL 22                                   |   | houses and           |   | houses and                              |                                    | Tian overlay  |
|   |   | township;            |   | township.                               | 0 Highcharts.com                   |               |
|   |   | PTP link radio's to  |   | cownsinpi                               | Blue Antenna (m) Green Antenna (m) |               |
|   |   | Woodend would        |   |   | 20 4                               |               |
| Magnet Lange                            |   | need extreme         |   |   |                                    |               |
|   |   | height for tower     |   |   |                                    |               |
| 1,7,58201                               | • | Insufficient power   |   |   |                                    |               |
| 4 0000000000000000000000000000000000000 |   | supply.              |   |   |                                    |               |
| Bald Hill Bacchus Marsh                 | • | Null line of site to | • | Null line of site                       | Bald hill to Distaster Recovery    |               |
|   |   | disaster recovery    |   | to Gisborne ICC                         | Centre Gisborne.                   |               |
|   |   | centre in Gisborne   | • | Reduced area                            |                                    |               |
|   | • | Reduced area         |   | coverage to                             |                                    |               |
|   |   | coverage to          |   | sites- data                             |                                    |               |
|   |   | southern site -      | • | Reduced area                            |                                    |               |
|   |   | data                 |   | coverage to                             |                                    |               |
|   | • | Reduced area         |   | sited – Voice                           |                                    |               |
|   |   | coverage to          | • | Would need to                           |                                    |               |
|   |   | southern site -      |   | be co located on                        |                                    |               |
|   |   | voice                |   | an existing                             |                                    |               |
|   | 1 |                      |   | _ · _ · · · · · · · · · · · · · · · · · | <u> </u>                           |               |







|  | <ul> <li>Would need to be co located on an existing facility which means limited control over the asset, limited access to the asset and physical and cyber security issues.</li> <li>Standby power issues</li> </ul> | facility which means limited control over the asset, limited access to the asset and physical and cyber security issues.  • Standby power issues | Radio Path Study  Distance: 23.58 (km)  600  Highcharts.com  Blue Antenna (m)  1 |
|--|---|--|--|
| Other sites including: Riddell Road Storage Tank; Jacksons Hill Basin Sunbury; Rocky Hill Romsey; Green Hills Eynesbury Mount Bullengarook | Line of site and<br>reduced coverage<br>issues  | •  |  |





## 3. Consideration of co-locating with a new or existing telecommunication facility with another organization in Gisborne South.

This application is not in any way associated with commercial telecommunication provision.

The sole purpose of the replacement tower under consideration is to transmit the necessary communications for essential services being water and sewer and Fire protection.

Western Water and the CFA are not going to combine with a commercial telecommunications provider for a number of reasons including:

- This site needs to be fully operational again ASAP (before next fire season).
- Commercial telecommunications systems are by nature not as secure as a system run by the Authority for which the data is being collected.
- Commercial telecommunications systems are not as resilient and robust in an emergency;
- Their sites are physically poor regards security;
- Western water can fix it's systems within a day, a Commercial telecommunications provider cannot, and definitely do not do this.
- Their sites have very low back up power. The Mount Gisborne site has recently been upgraded to have 2 days back up power.

In recent years applications have been made to Council for the development of telecommunications facilities in Gisborne South. Two applications for towers in Gisborne South have refused by the previous Council (NBN & Optus). The Optus tower at 479 Counagalt Road Gisborne South was approved by VCAT in 2008. That tower does not appear to have been constructed as yet.

While not an option for Western Water and the CFA for the reasons outlined above. The Optus tower when constructed may address the broader private communications issue raised by Councillors.

We submit that the two issues are very separate and this present and pressing need for essential services communications needs to be considered as a separate matter as per the application currently before Council for consideration.





Western Water is happy to further discuss the proposal with you.

Questions can be directed to Wes Wittick or Kate Patterson at Western Water <u>Wes.Wittick@westernwater.com.au</u> or <u>Kate.Patterson@western</u>water.com.au or via our Planning Consultant, Fiona Slechten at Calibre Group <u>fiona.slechten@calibregroup.com</u> or 0407 991 779.

Yours sincerely,

Kate Patterson

Project Manager, Feasibility Team

Western Water