

Reference: Proposed 30 metre mast at 190 Georgina Rd, Greenough, 6532.

I currently use a ground-based antenna system for operations which is ok for local contacts within 800km but this is a major drawback for communications beyond this due to the height above ground. I am proposing to erect a 30-meter guyed tower made by Flight Brothers in South Australia to be able to mount an antenna. This will give my station significantly improved range and operation into other parts of the world.

As part of the application please see enclosed two discussion papers on the technical reasoning behind why the tower needs to be 30 metres high. The frequency of operation will be from 3.5 Mhz, therefore the minimum useful height is 30 metres. I have highlighted the main relevant points.

The main issue from a development point of view is visual. I will address these issues below.

1. The property is 200 acres and the mast will be 128m from the closest boundary. This puts it at the furthest distance from any road or neighboring dwelling.
2. The property doesn't have a direct road frontage as it has an easement through a neighboring property. This ensures it is not seen easily from any publicly accessible point. It will be 1.59km from Georgina Rd at the closest point.
3. The landscape is undulating and it will not be on the highest point of the property. This helps reduce the effective visual height.
4. Below is modeling of the view that will be seen from neighboring dwellings. These show that most will either not be able to see the mast or only the very top the mast. These are topographical drawings and do not take into account native vegetation that is growing which will further shield the view. The studies are based on the mast being 30 meters tall with the viewing eye height of the person at 2 meters from ground level.
5. The closest neighboring dwelling that can see it is Ainsley at 675 metres. This dwelling is also shielded by a tree line at 270 metres from it meaning they will only be able to see the top of the mast.
6. The mast is of a lattice construction; therefore, it is not solid construction so helping it to blend into the back ground.
7. The mast is only 35cm wide so from neighboring dwellings where it can be seen it will not be significant.
8. Other masts within the local area are on the corner of Georgina Rd and Phelps Rd, 2.2km away which are of similar height but are approx. 90cm in diameter and of solid steel tube construction, significantly more noticeable than the proposed mast. There are 2 phone tower masts approximately 6 km to the south east and 80 meters tall.
9. There are no buildings or infrastructure within the drop zone of the mast, therefore in the very unlikely event of failure nothing else will be damaged.
10. The mast will not be visible from the two local historical sites of the Greenough Pioneer Museum or the Central Greenough Café. The closest view from the Brand Hwy is 9.1 km away.
11. Radio or Electrical interference to neighboring properties will not be an issue as the station does and will meet all applicable ACMA emission standards and has already been operating for the past 17 years with no problems or complaints at this location. The distance to any neighboring property also ensures there is no risk of interference.
12. The mast will have a locking device fitted to prevent unauthorized access and climbing.

The following is to address the points raised in the “Application for Development Approval” form page 3:

(a)i – The development at completion will not emit or create any noise, vibration, smell, light, smoke, dust, oil or other waste products. The possibility of any electrical interference is addressed above in point 11.

(a)ii – The majority of the construction will be completed by sub-contractors, approx. 2 employees.

(a)iii – Operation hours may be at any time but usually for 2 hours in 24 hours.

(a)iv – No machinery will be used for ongoing operational purposes.

(a)v – No vehicles will be used for ongoing operational purposes.

(b)i – See attached.

(b)ii – See attached. No vegetation to be removed.

(b)iii – The existing site is zoned for general farming. This will remain the case after the development and will not interfere with any farming activities currently undertaken.

(b)iv – Not applicable

(b)v – Not applicable

(b)vi – Not applicable

(b)vii – Not applicable

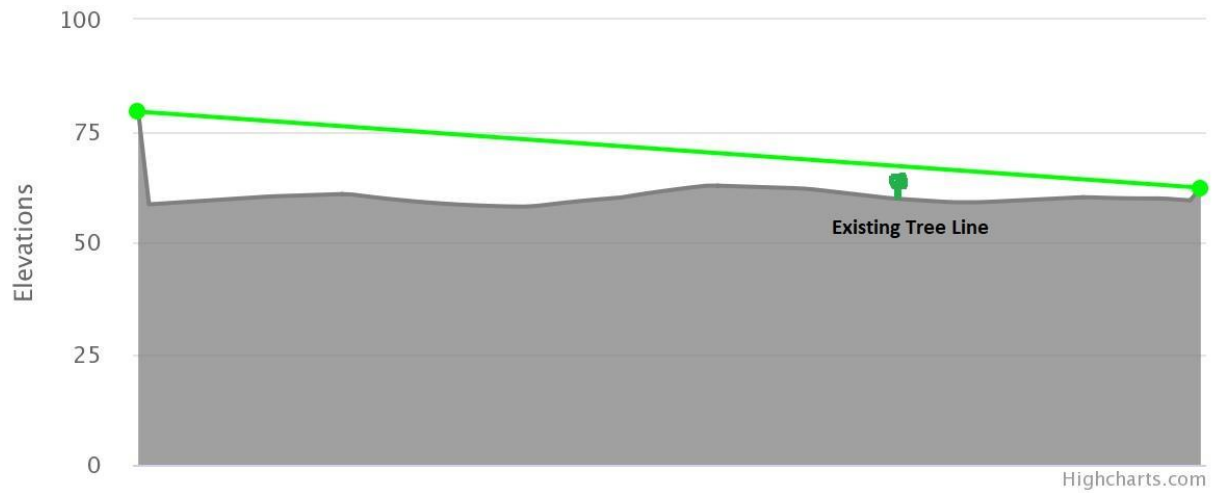
(b)viii – Not applicable

(c) – Not applicable

(d) – See attached “Radio Path Study” showing the visual line of site from neighboring properties. A green line indicates some or all of it can be seen, a red line indicates it cannot be seen. In practice most of the properties with a green line will not be able to see the mast due to existing native vegetation.

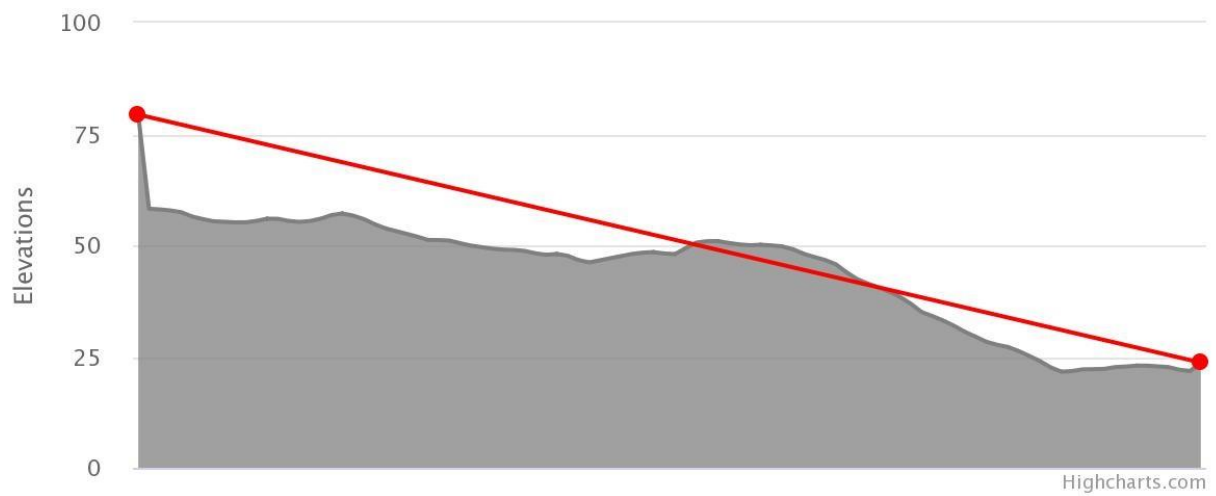
Radio Path Study - Ainsley

Distance: 986 (m)



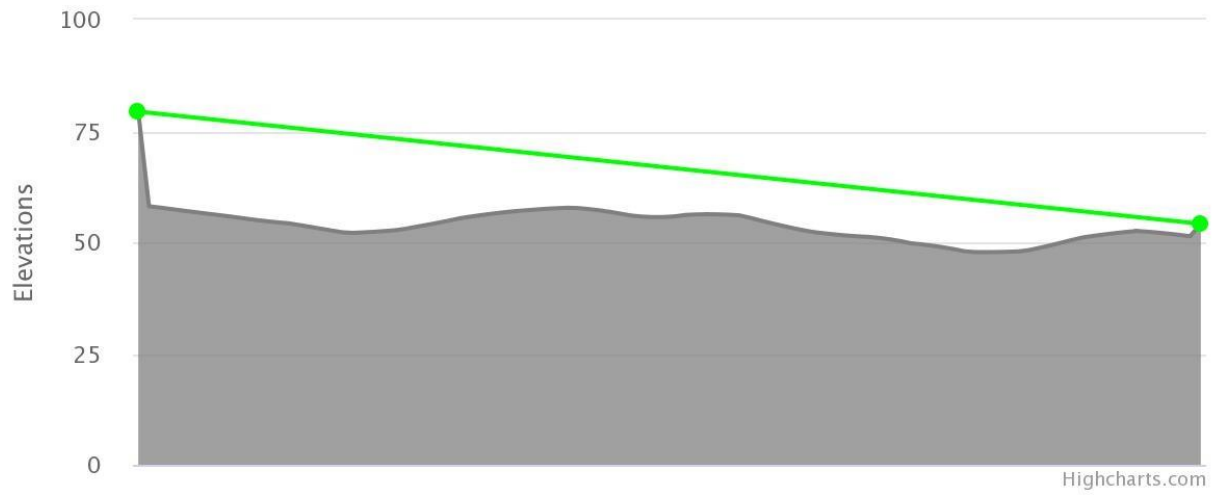
Radio Path Study - Central Greenough Cafe

Distance: 3.78 (km)



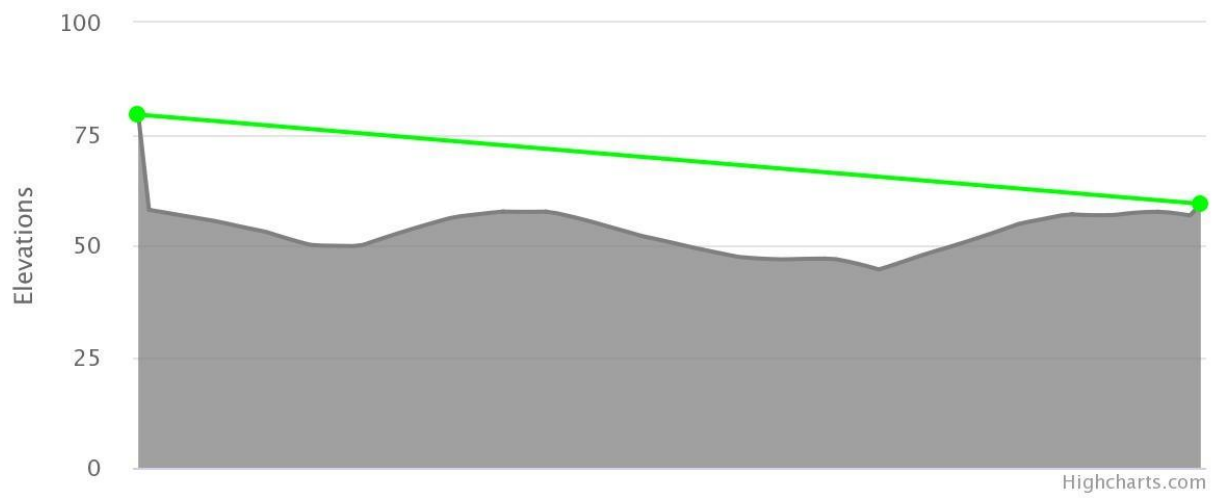
Radio Path Study - Crabb

Distance: 1.4 (km)



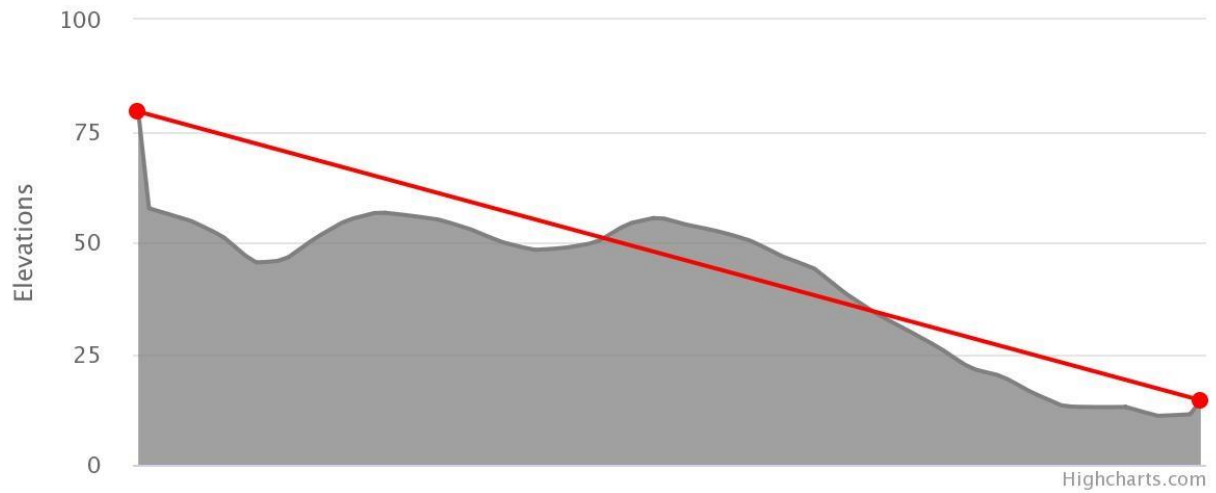
Radio Path Study - Ferry

Distance: 1.55 (km)



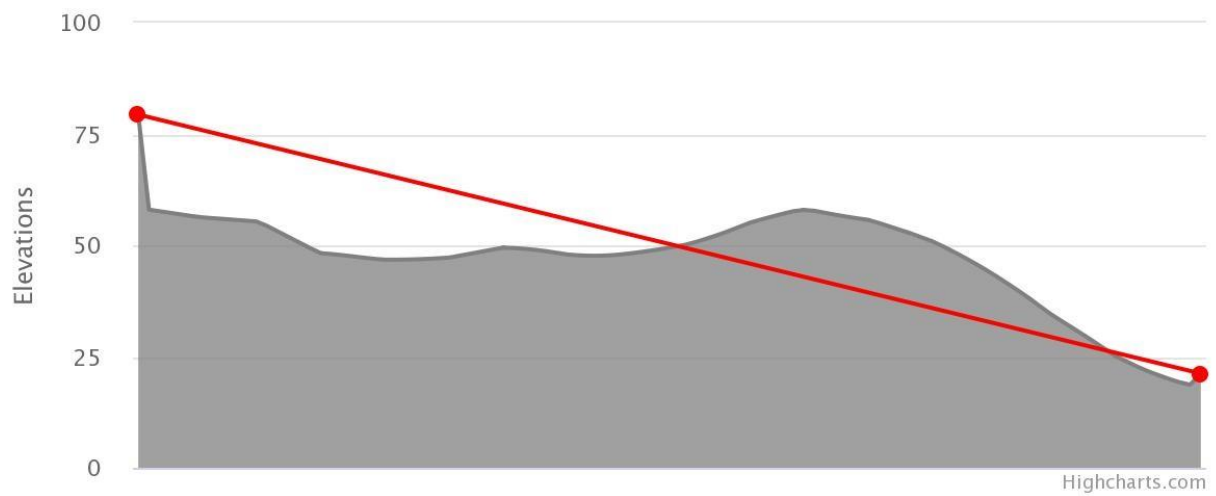
Radio Path Study - Greenough Pioneer Museum

Distance: 2.3 (km)



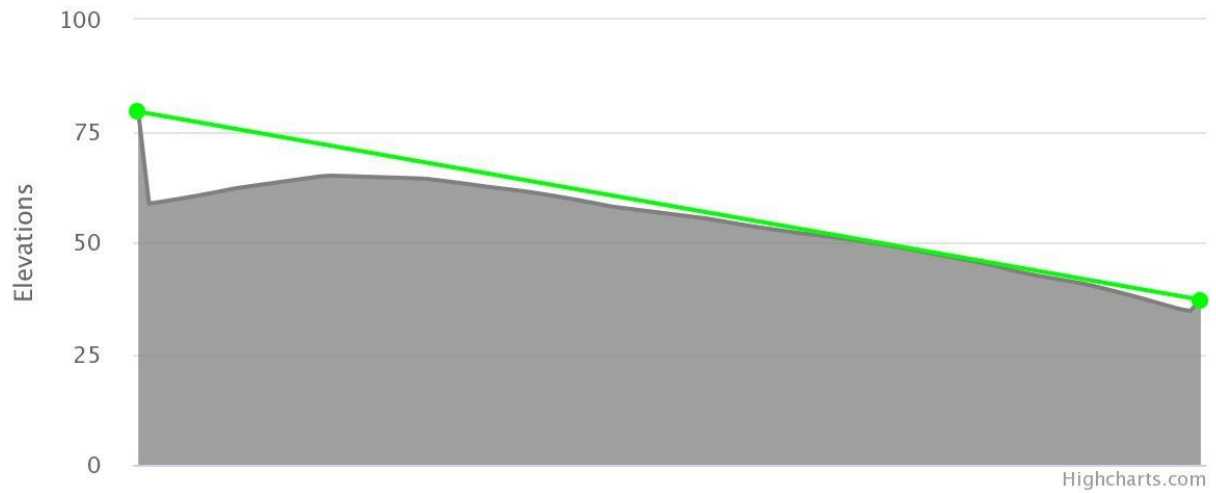
Radio Path Study - Harrington

Distance: 1.46 (km)



Radio Path Study - Kermode

Distance: 995 (m)



Radio Path Study - Micke

Distance: 1.01 (km)

