

## Appendix C.1

# Lyell Highway Surge Tower Visual Simulations

# Tarraleah Visual Simulations

Surge Tower

# MPP - Visual Simulations

## Tarraleah



Hydro Tasmania aims to ensure that stakeholders involved in the project are able to develop an informed view of the project and its visibility from known public access sites. To assist this, Hydro Tasmania have prepared these visual images to simulate the new surge tower proposed for the site location at Tarraleah.

### Visual Simulation

This viewpoint pack prepared by Hydro Tasmania contains visual simulations of the proposed infrastructure to provide stakeholders with information about the scale and form of new infrastructure from viewpoints surrounding the location. All visual simulations have been generated using the software package WindPRO 4.0 published by EMD International.

Visual simulation is the process of making a composite image by combining elements of real imagery and 3D digitalization. Its primary purpose is to accurately portray a proposed activity modification or change within a landscape. Visual simulations are useful when assessing developments that produce change to a landscape by providing realistic 'before and after' depictions.

At each viewpoint the photographs are captured along with a number of environmental parameters and accurate geographic data. These components are then used to calibrate the photo to ensure realistic perspective and lighting on the rendered infrastructure models.

The simulations within this viewpoint pack are intended for use at the viewpoints shown. All of the images should be printed at A3 and viewed at arm's length. They are designed to provide a reasonable impression of the proposed project infrastructure when viewed in this way.

Visualisations have inherent limitations. For example :

- A visualisation can never show exactly what the proposed infrastructure will look like in reality due to different lighting, weather and seasonal conditions which vary through time.
- The images will give a reasonable impression of the scale of the infrastructure and the distance to the infrastructure, but can never be 100% accurate.
- A static image cannot convey solar panel reflections of glare due to changing light and angles of the sun.

It is important to bear these limitations in mind when assessing the proposed development and to use as much other information as possible to reach a conclusion on the likely landscape and visual impacts.



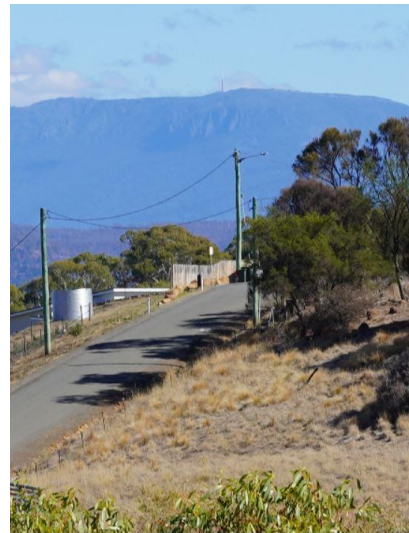
*The image should be viewed at a comfortable arm's length (approximately 500mm) and viewed normally with both eyes. The page should obscure any foreground not visible within the photomontage itself. This enables the photomontage to be directly compared within the wider context of the real landscape.*

# MPP - Visual Simulations Tarraleah

## Visual Simulation process

These images to the right show the key stages of the visual simulation process

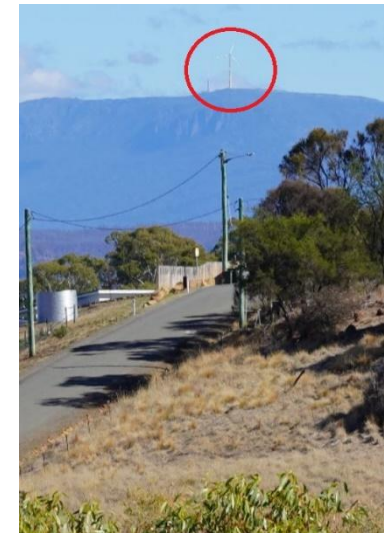
- Capture the imagery & control points
- Calibrate photo to terrain & control points
- Render with new infrastructure on top of photograph



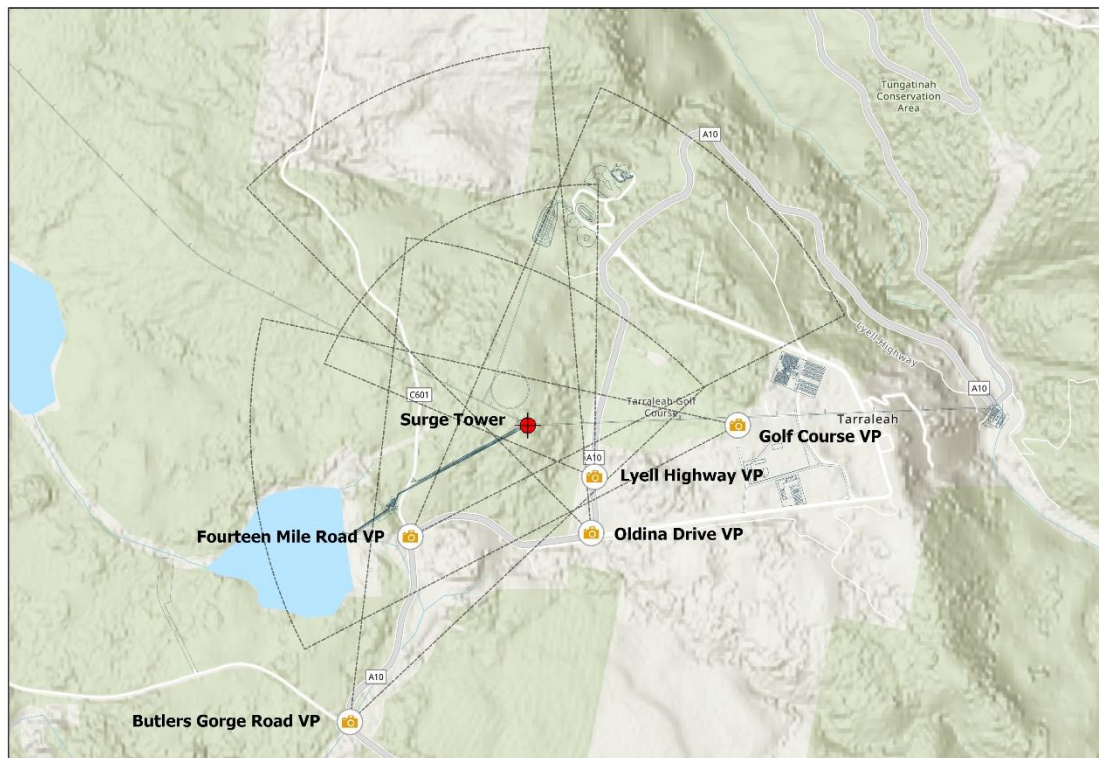
Capture



Calibrate



Render



## Viewpoint locations

The viewpoints of all the visual simulations contained within this viewpoint pack are shown on the map to the left.

The coordinates for each viewpoint are stated on each individual visual simulation.

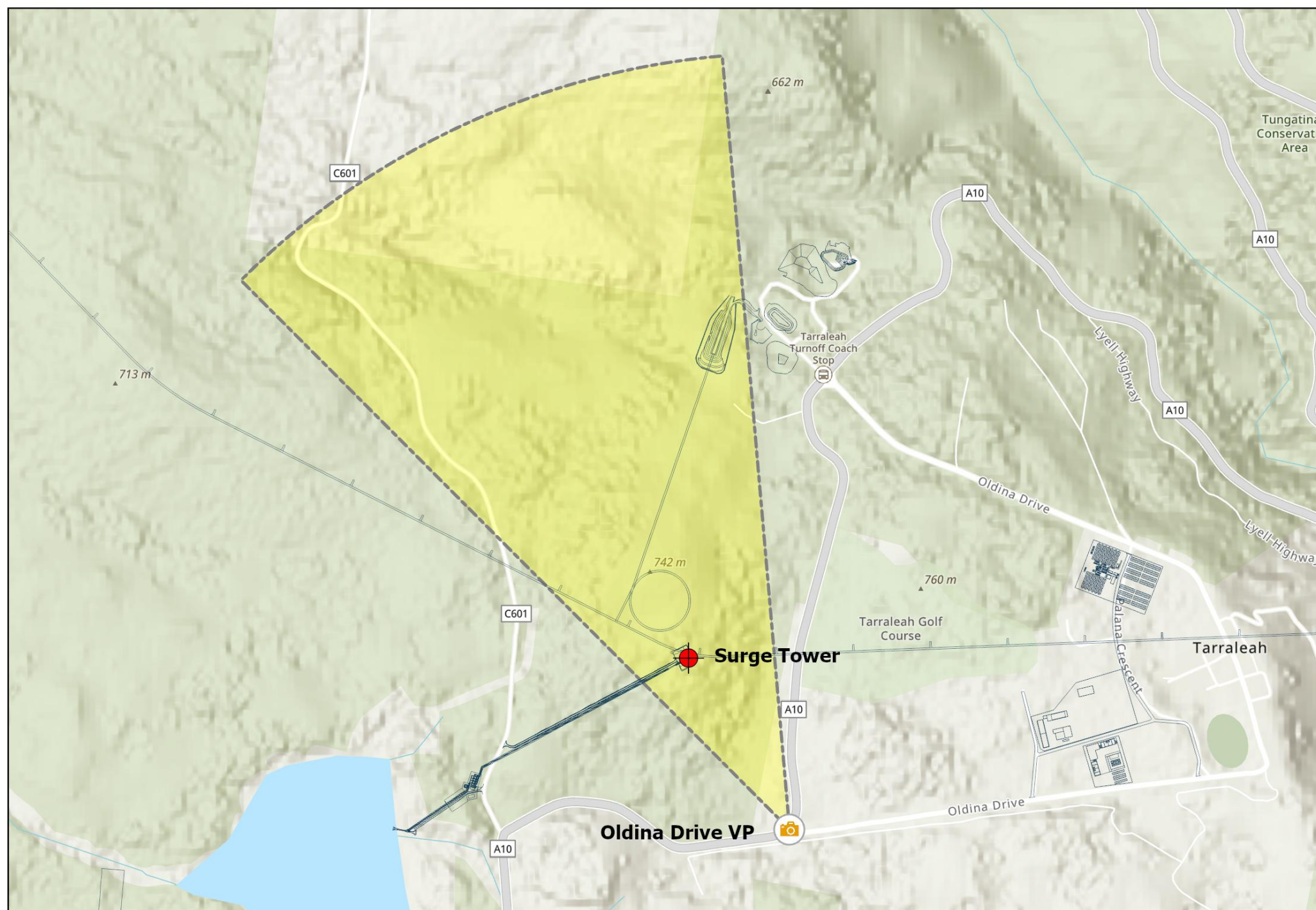
The visual simulation should be viewed when standing at the viewpoint location.

# Tarraleah Visual Simulations

Surge Tower – Oldina Drive / Lyell Highway  
intersection view

# MPP - Visual Simulations

## Oldina Drive / Lyell Highway viewpoint





MPP – Tarraleah Surge Tower Calibration  
View from Oldina Drive & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,239m  
Northing: 5,316,141m  
Elevation: 595.10m  
Photo Bearing : 334.8°

Date: 16/12/2025  
Time: 08:41 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 0.640 km



MPP – Tarraleah Surge Tower wireframe on DEM  
View from Oldina Drive & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,239m  
Northing: 5,316,141m  
Elevation: 595.10m  
Photo Bearing : 334.8°

Date: 16/12/2025  
Time: 08:41 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 0.640 km



MPP – Tarraleah Surge Tower Visual Simulation (Tower Highlight)  
View from Oldina Drive & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,239m  
Northing: 5,316,141m  
Elevation: 595.10m  
Photo Bearing : 334.8°

Date: 16/12/2025  
Time: 08:41 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 0.640 km



MPP – Tarraleah Surge Tower Visual Simulation  
View from Oldina Drive & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,239m  
Northing: 5,316,141m  
Elevation: 595.10m  
Photo Bearing : 334.8°

Date: 16/12/2025  
Time: 08:41 AM  
Weather: Partial cloud cover  
Visibility: Normal

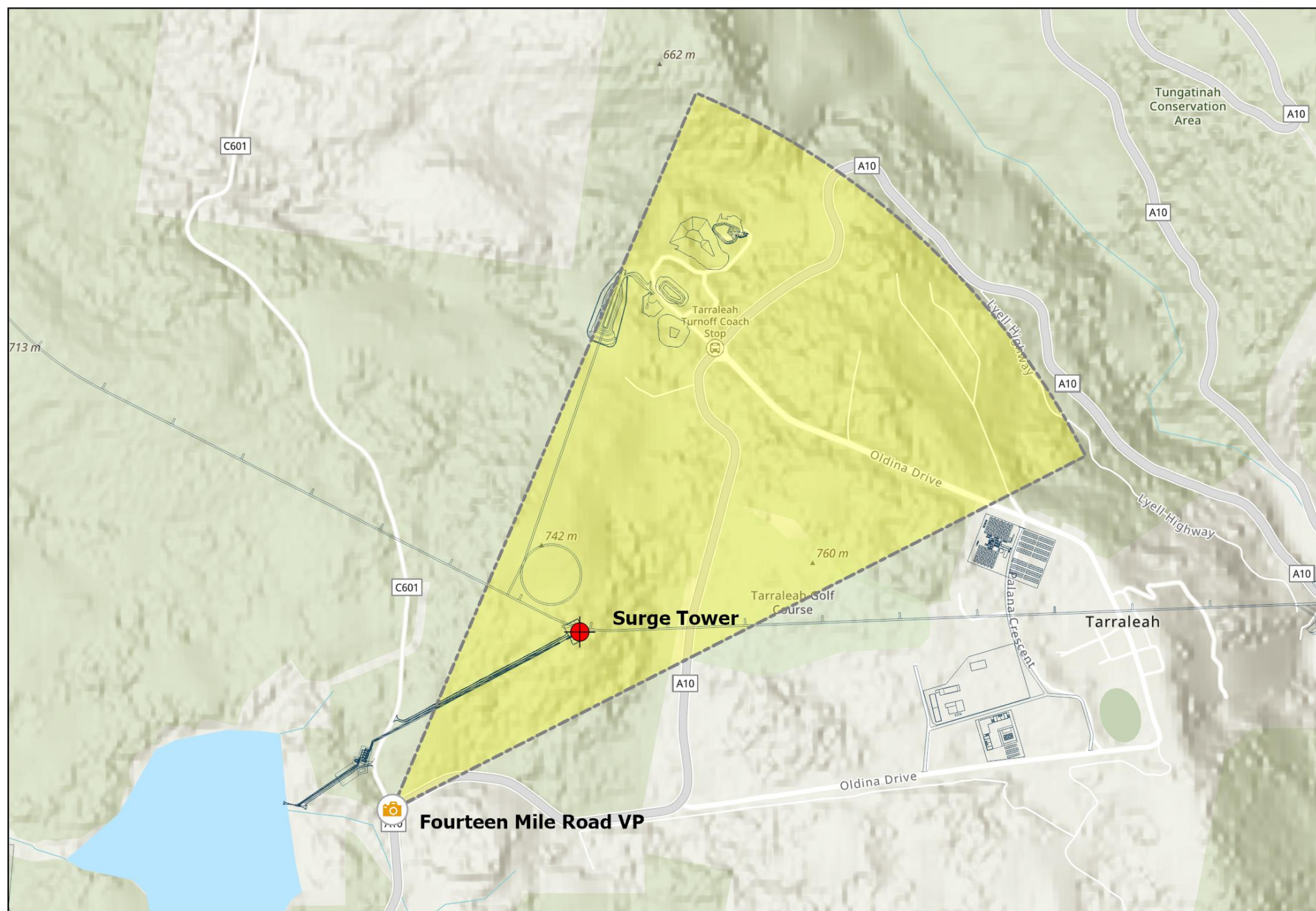
Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 0.640 km

# Tarraleah Visual Simulations

Surge Tower – Fourteen Mile Road / Lyell Highway  
intersection view

# MPP - Visual Simulations

## Fourteen Mile Road viewpoint





MPP – Tarraleah Surge Tower Calibration  
View from Fourteen Mile Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,305m  
Northing: 5,316,122m  
Elevation: 632.6m  
Photo Bearing : 43.6°

Date: 16/12/2025  
Time: 13:10 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 40.2°

Distance : 0.830 km



MPP – Tarraleah Surge Tower wireframe on DEM  
View from Fourteen Mile Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,305m  
Northing: 5,316,122m  
Elevation: 632.6m  
Photo Bearing : 43.6°

Date: 16/12/2025  
Time: 13:10 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 40.2°

Distance : 0.830 km



MPP – Tarraleah Surge Tower Visual Simulation (Tower Highlight)  
View from Fourteen Mile Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,305m  
Northing: 5,316,122m  
Elevation: 632.6m  
Photo Bearing : 43.6°

Date: 16/12/2025  
Time: 13:10 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 40.2°  
Distance : 0.830 km



MPP – Tarraleah Surge Tower Visual Simulation  
View from Fourteen Mile Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,305m  
Northing: 5,316,122m  
Elevation: 632.6m  
Photo Bearing : 43.6°

Date: 16/12/2025  
Time: 13:10 PM  
Weather: Partial cloud cover  
Visibility: Normal

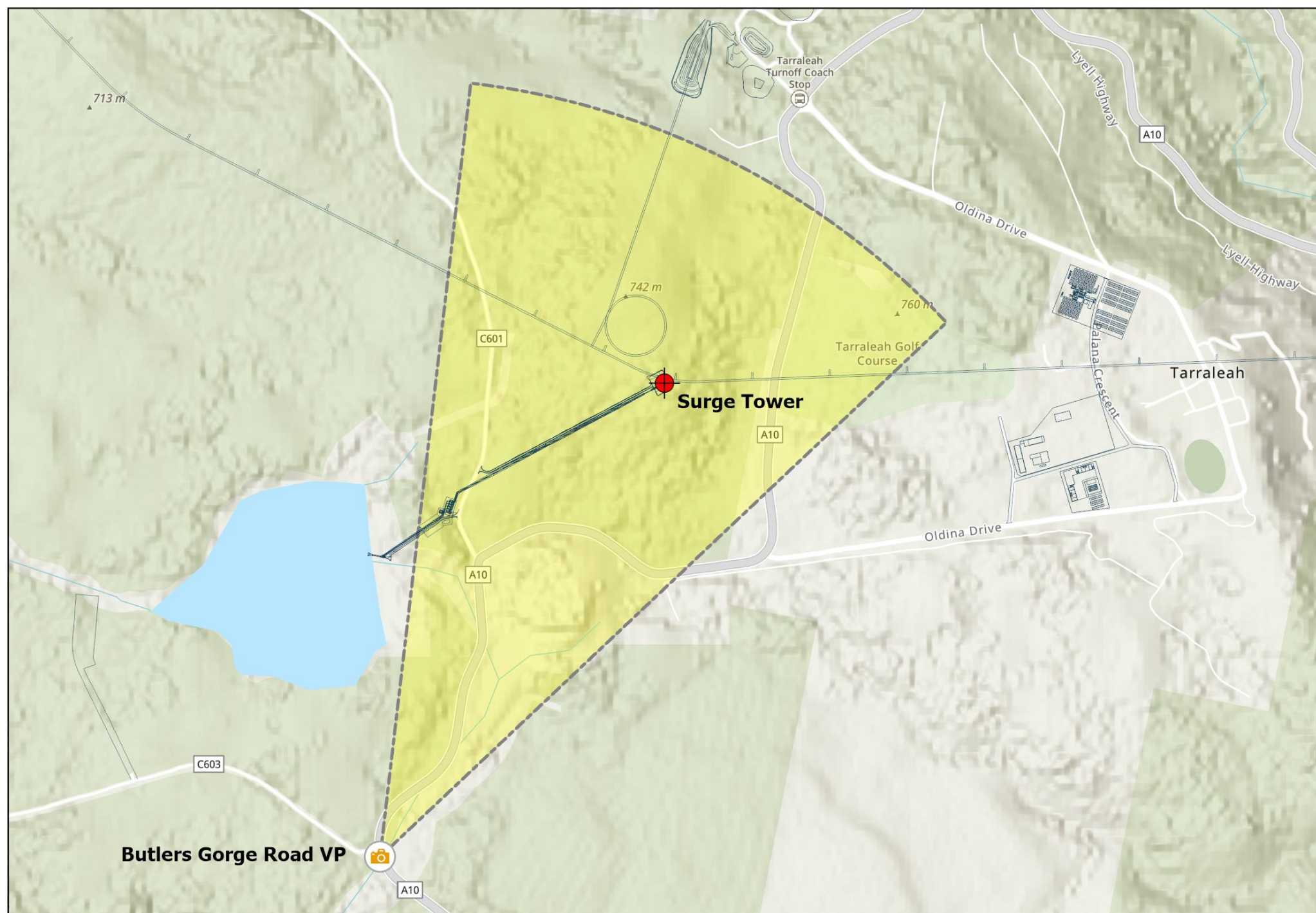
Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 40.2°  
Distance : 0.830 km

# Tarraleah Visual Simulations

Surge Tower – Butlers Gorge Road / Lyell Highway  
intersection view

# MPP - Visual Simulations

## Butlers Gorge Road viewpoint





MPP – Tarraleah Surge Tower Calibration  
View from Butlers Gorge Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,000m  
Northing: 5,315,176m  
Elevation: 646.7.0m  
Photo Bearing : 27.4°

Date: 16/12/2025  
Time: 13:07 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 1.774 km



MPP – Tarraleah Surge Tower wireframe on DEM  
View from Butlers Gorge Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,000m  
Northing: 5,315,176m  
Elevation: 646.7.0m  
Photo Bearing : 27.4°

Date: 16/12/2025  
Time: 13:07 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 1.774 km



**MPP – Tarraleah Surge Tower Visual Simulation (Tower Highlight)**  
**View from Butlers Gorge Road & Lyell Highway intersection**

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,000m  
Northing: 5,315,176m  
Elevation: 646.7.0m  
Photo Bearing : 27.4°

Date: 16/12/2025  
Time: 13:07 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°

Distance : 1.774 km



MPP – Tarraleah Surge Tower Visual Simulation  
View from Butlers Gorge Road & Lyell Highway intersection

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 452,000m  
Northing: 5,315,176m  
Elevation: 646.7.0m  
Photo Bearing : 27.4°

Date: 16/12/2025  
Time: 13:07 PM  
Weather: Partial cloud cover  
Visibility: Normal

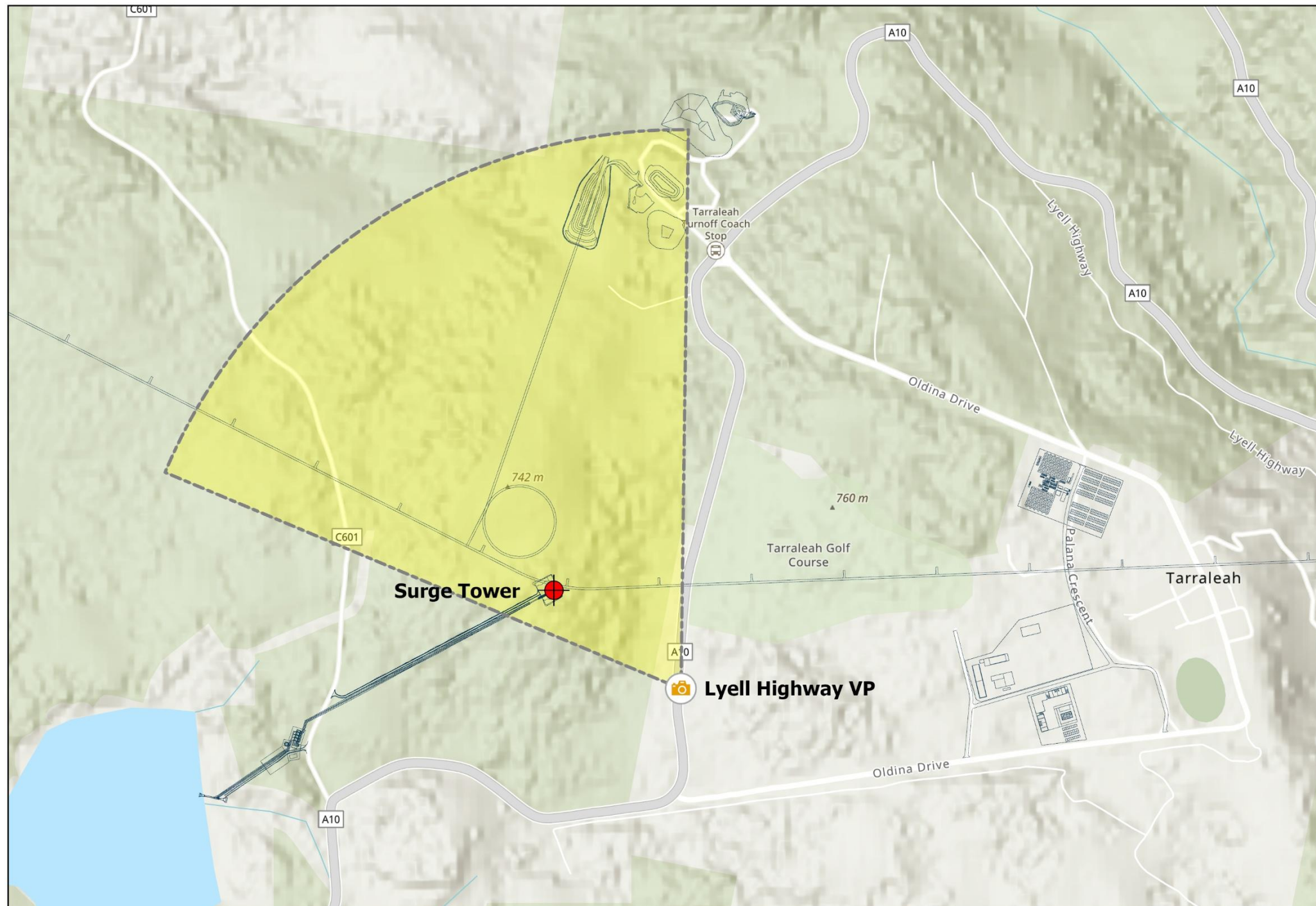
Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 1.774 km

# Tarraleah Visual Simulations

Surge Tower – Close up Lyell Highway view

# MPP - Visual Simulations

## Lyell Highway Close up viewpoint





Note: Photo taken with an iPhone and focal length is not as per other visual simulations. Visual may not represent the human eye and should be used more as an indication ONLY.

**MPP – Tarraleah Surge Tower Calibration**  
**View from Lyell Highway**

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,254m  
Northing: 5,316,428m  
Elevation: 605.2m  
Photo Bearing : 326.8°

Date: 24/01/2024  
Time: 12:23 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV    Distance : 0.430 km  
Camera Height: 1.65m  
Focal Length (35mm eq.): 25.75mm  
Hz FOV: 67.8°



Note: Photo taken with an iPhone and focal length is not as per other visual simulations. Visual may not represent the human eye and should be used more as an indication ONLY.

**MPP – Tarraleah Surge Tower Calibration**  
**View from Lyell Highway**

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,254m  
Northing: 5,316,428m  
Elevation: 605.2m  
Photo Bearing : 326.8°

Date: 24/01/2024  
Time: 12:23 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV    Distance : 0.430 km  
Camera Height: 1.65m  
Focal Length (35mm eq.): 25.75mm  
Hz FOV: 67.8°



**MPP – Tarraleah Surge Tower Simulation (Yellow Highlight)  
View from Lyell Highway**

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,254m  
Northing: 5,316,428m  
Elevation: 605.2m  
Photo Bearing : 326.8°

Date: 24/01/2024  
Time: 12:23 PM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV    Distance : 0.430 km  
Camera Height: 1.65m  
Focal Length (35mm eq.): 25.75mm  
Hz FOV: 67.8°



**MPP – Tarraleah Surge Tower Simulation**  
**View from Lyell Highway**

Recommended viewing distance when viewed with both eyes is 550mm

Eastings: 453,254m  
Northing: 5,316,428m  
Elevation: 605.2m  
Photo Bearing : 326.8°

Date: 24/01/2024  
Time: 12:23 PM  
Weather: Partial cloud cover  
Visibility: Normal

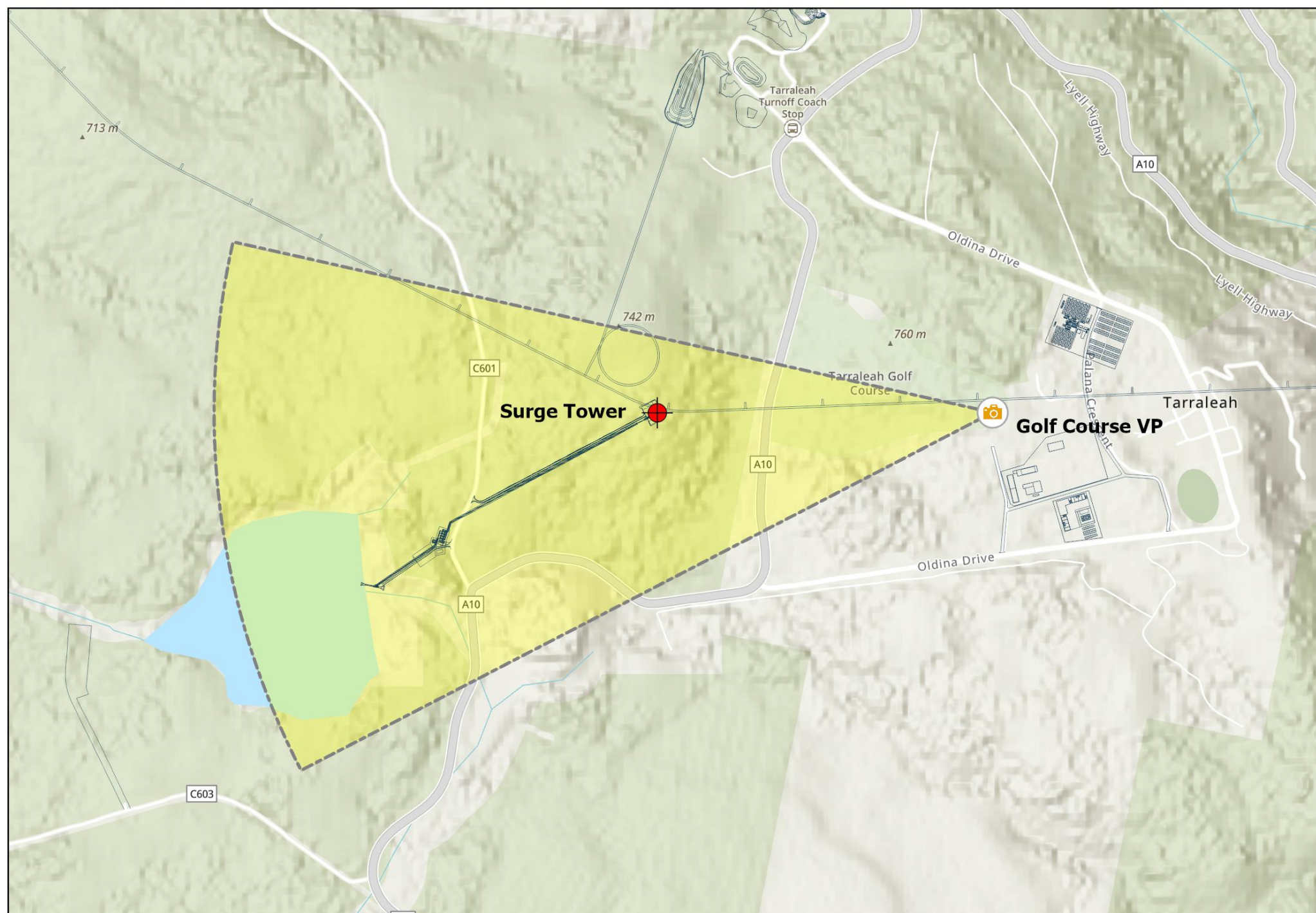
Camera: Canon EOS 5D Mark IV    Distance : 0.430 km  
Camera Height: 1.65m  
Focal Length (35mm eq.): 25.75mm  
Hz FOV: 67.8°

# Tarraleah Visual Simulations

Surge Tower – Golf course hole 1 view

# MPP - Visual Simulations

## Golf Course hole 1 viewpoint





**MPP – Tarraleah Surge Tower Calibration**  
**View from Tarraleah Golf Course**

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,931m  
Northing: 5,316,694m  
Elevation: 609.3m  
Photo Bearing : 261.7°

Date: 16/12/2025  
Time: 08:36 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°

Distance : 1.075 km



MPP – Tarraleah Surge Tower wireframe on DEM  
View from Tarraleah Golf Course

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,931m  
Northing: 5,316,694m  
Elevation: 609.3m  
Photo Bearing : 261.7°

Date: 16/12/2025  
Time: 08:36 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 1.075 km



MPP – Tarraleah Surge Tower Visual Simulation (Tower Highlight)  
View from Tarraleah Golf Course

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,931m  
Northing: 5,316,694m  
Elevation: 609.3m  
Photo Bearing : 261.7°

Date: 16/12/2025  
Time: 08:36 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°  
Distance : 1.075 km



**MPP – Tarraleah Surge Tower Visual Simulation**  
**View from Tarraleah Golf Course**

Recommended viewing distance when viewed with both eyes is 550mm

Easting: 453,931m  
Northing: 5,316,694m  
Elevation: 609.3m  
Photo Bearing : 261.7°

Date: 16/12/2025  
Time: 08:36 AM  
Weather: Partial cloud cover  
Visibility: Normal

Camera: Canon EOS 5D Mark IV  
Camera Height: 1.65m  
Focal Length (35mm eq.): 50mm  
Hz FOV: 39.6°

Distance : 1.075 km