**Performing Viewshed Analysis in QGIS**

This link provides a thorough explanation of how to do viewshed analysis in QGIS:

<http://www.zoran-cuckovic.from.hr/QGIS-visibility-analysis/help_qgis2.html>

You need to have two input data sets:

1. A digital terrain model in raster form. A digital terrain model shows elevation (the height of the land), and is needed to determine what can be seen from one point (because hills etc block the view).
   1. You can download a DEM for Auckland (Auckland Lidar 1m DEM) from the LINZ data service (link further up the Stream course page, under Block 1).
   2. It is best to then crop the DEM to the area that you want to analyse (e.g. the Albany area, or anything that might be visible from the points that you want to show the view from). You can do this with the Raster > Extraction > Clip Raster by Extents tool in QGIS (select the Auckland DEM from LINZ as your input file, and then specify the coordinates of the bounding box that you want to be included in your cropped file.
2. Create a QGIS point layer for the point or point that you want to determine the view from. For your projects, you may wish to show users what the view would look like for a few different locations, so that they can make decisions about alternative locations. Create a single point layer containing all of your points.

Then you can run the viewshed analysis as per the link above, and you should end up with a new file for each of the points in your point layer. You can then use these in your web map to show the user if they want to see what they would be able to see from particular points. Make sure you don’t select cumulative option (which will create a single layer that sums the view from all of your points) or intervisibility (which will create an intervisibility network between your points).