

The following outlines how to create a point grid in QGIS and remove the points from areas that do not need analysis, such as water features. The first step to achieve this is opening a new QGIS instance. The next step is to create a new vector layer using the “create new vector layer” function in QGIS. Useful vector data includes things like OSM and shapefiles, with their supported files. After a vector layer is loaded into QGIS open the “normal points” tool. In this tool in the “input extent” option use the “select extent on canvas” to get the exact area that is being analyzed. This is represented in *figure 1*:

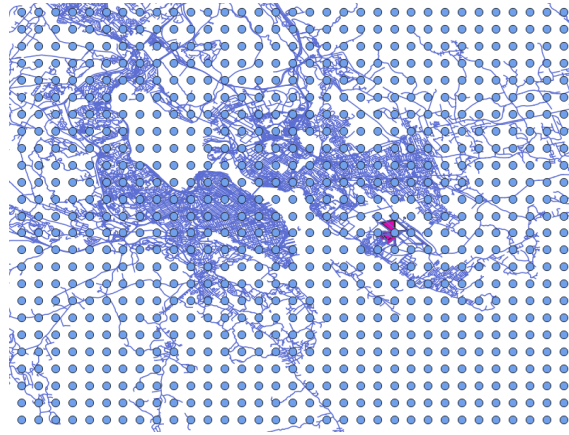


Figure 1: HRM regular points

Once the point grid has been generated, import another vector layer of data (in this case, a Nova Scotia shapefile with water features) that will allow us to overlay the two and select those points on water for removal. *Figure 2* shows this:

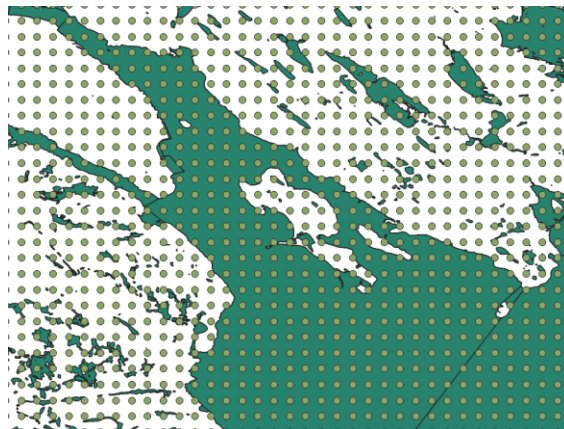


Figure 2 HRM grid points with features

Next use the “select by location” tool with the grid points layer as the first input and Nova Scotia shapefile as the other. Use the “intersect” option during this analysis. *Figure 3* shows this:



Figure 3 HRM after "select by location" tool runs

Once this process has completed all grid points that are to be removed should have been selected. Next, enable editing on the grid points layer. Use the delete button to remove the selected points. This is shown in figure 4:

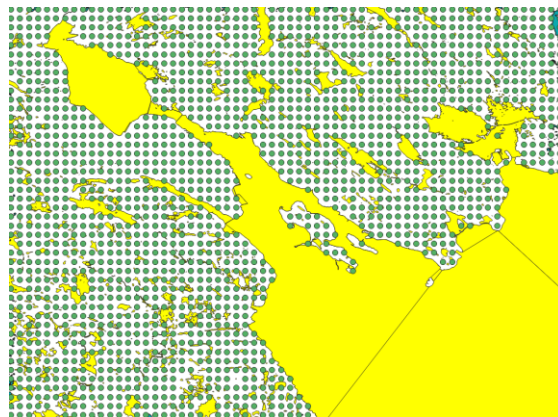


Figure 4 HRM point grid with removed features

Finally, save the grid points layer as a shapefile for the analysis.

**Note point spacing refers to latitude and longitude, where .001 is approximately 110 meters*

***Ensure that both the layers are of the same geometry type, ex: WG84. Also, possibly use the "fix geometry" tool if the "select by location tool" hits an error where it cannot compare point grid to the features that need to be removed.*