

2.1 Project I: Town Lot near the Ranger Station:

A residential lot development feasibility map was created for a 76-acre parcel of land, highlighted in Figure 1, owned by the Town of Isle au Haut. Using a GPS device and ArcGIS map printouts of the area, the area was explored on foot in order to determine areas of shallow bedrock, wetlands, and suitable soils for septic systems. The GPS tracks of the fieldwork completed were mapped and can be seen in Figure 2. Pictures of these different geological features were taken and can be seen in Figure 3, Figure 4, and Figure 5 below.

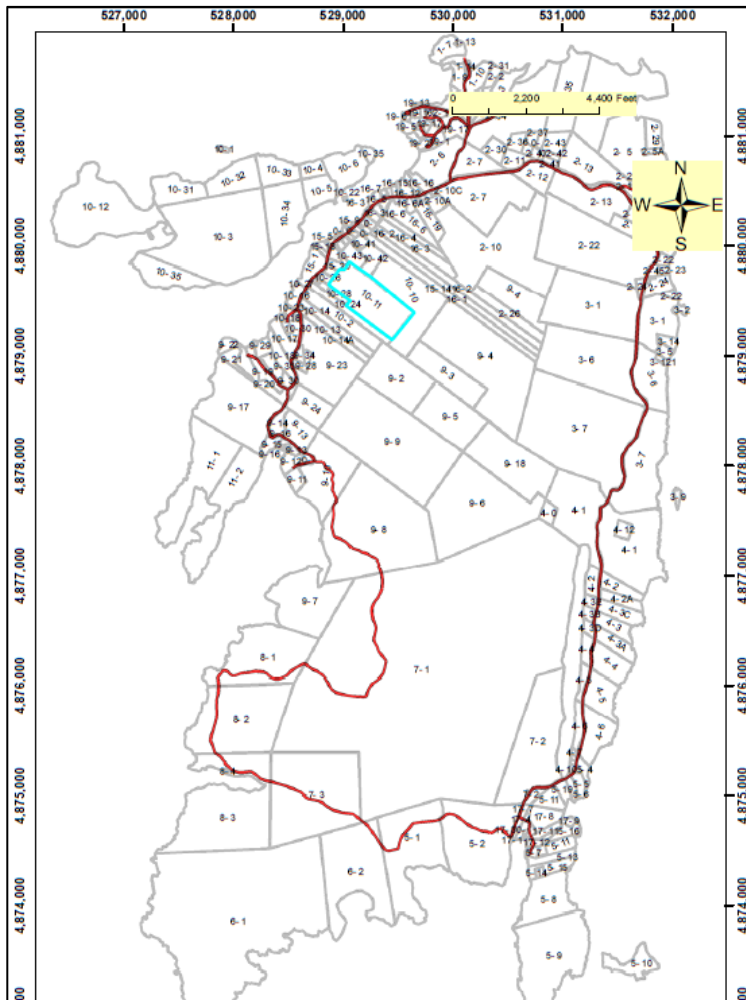


Figure 1: Location of Town Land near Ranger Station

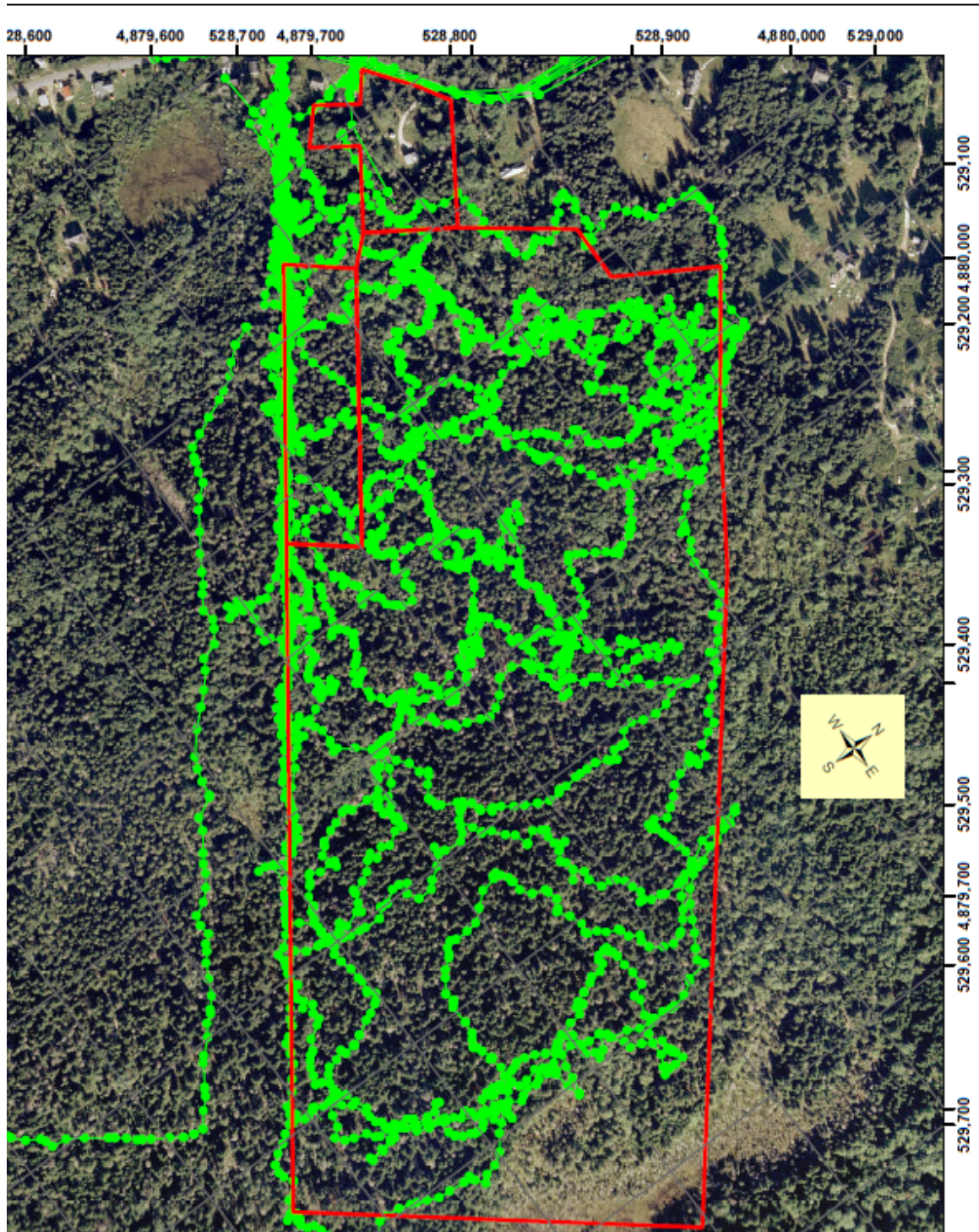


Figure 2: GPS Tracks of Fieldwork



Figure 3: Wetland



Figure 4: Steep Bedrock Ledge



Figure 5: Suitable Soil Area

This goal was to assess the potential of the land for future housing in order to attract new residents to the island to sustain the community. The potential for twenty different lots was mapped, as can be seen in Figure 6. Each lot was mapped so that every property has access to suitable soil for the use of a septic system, and to allow the lot owner to have good view lines. A proposed road to access these lots was also delineated, and is shown in Figure 6. This road plan was determined to have the least amount of elevation change and the easiest construction. Figure 7 is an output of a graph showing the road profile, where it was determined that the maximum grade would be around 8%, with the average grade around 6%.

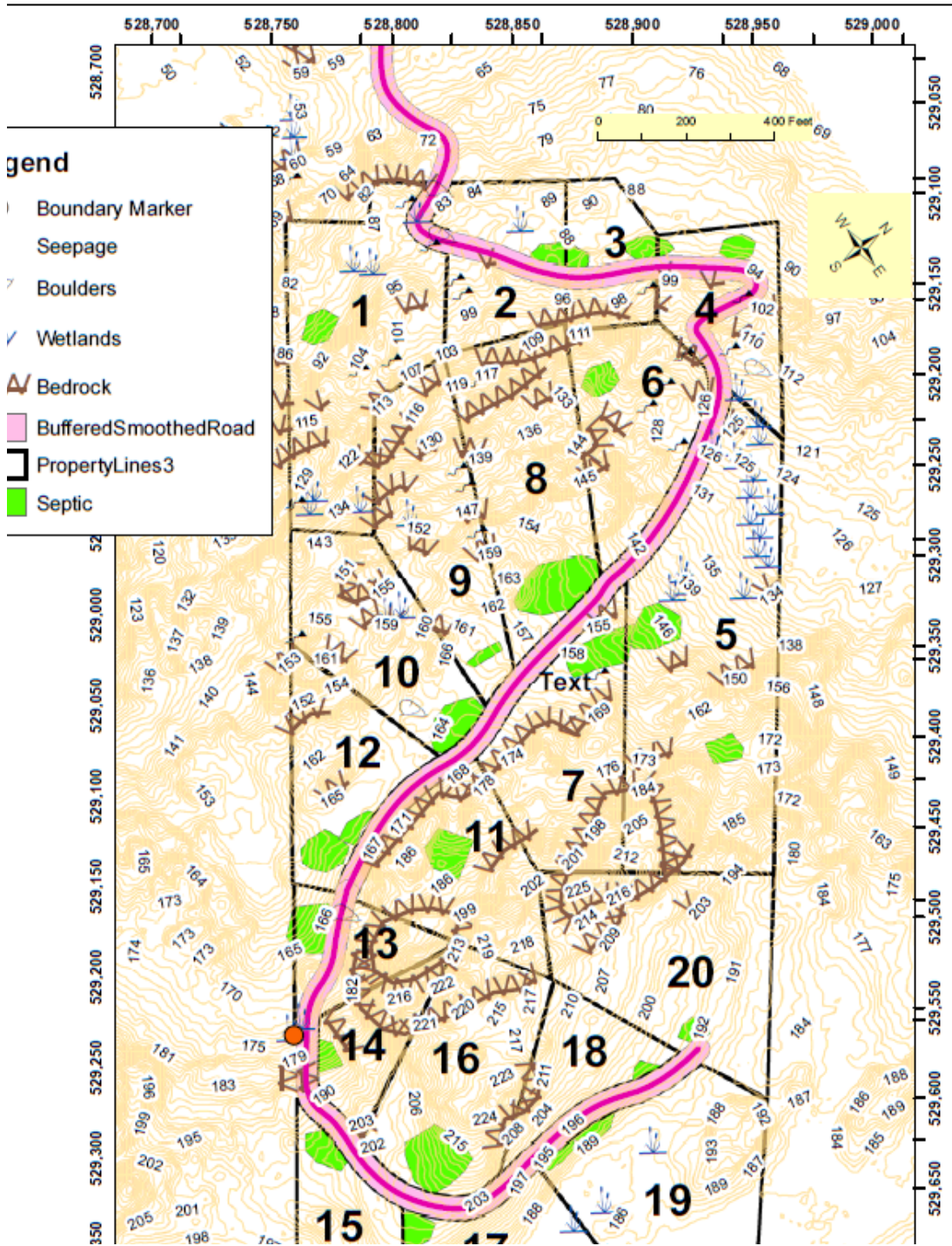


Figure 6: Lot Layout of Town Parcel near the Ranger Station

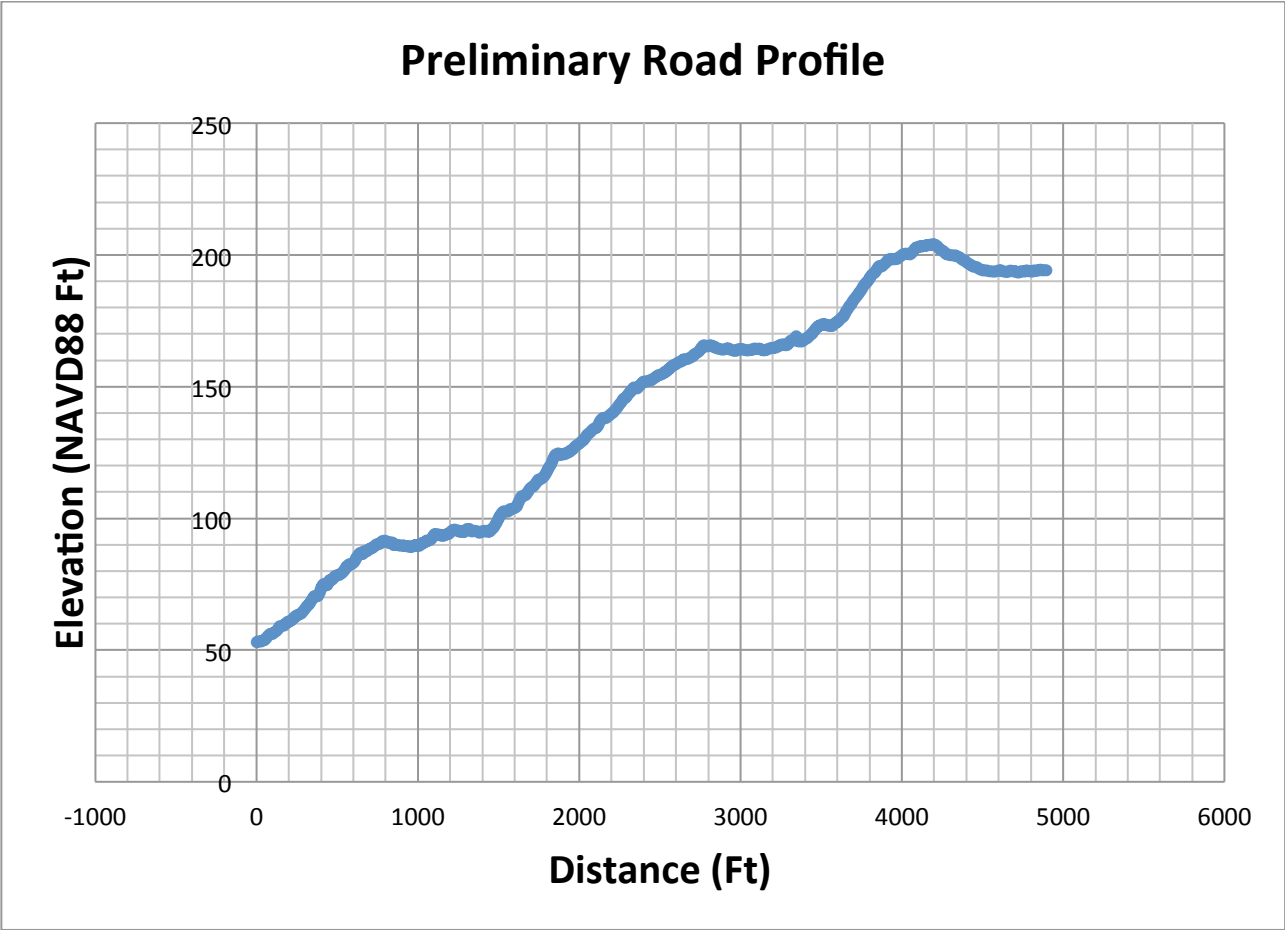


Figure 7: Preliminary Road Profile

2.2 Project II: Town Lots near Mt. Champlain

After the town-owned lot near the ranger station was completed, a few other town-owned lots on the island were looked at in terms of land development feasibility, using the same process that was used to look at the lot near the ranger station. Figure 8 below highlights the large blocks of town-owned areas on the island.

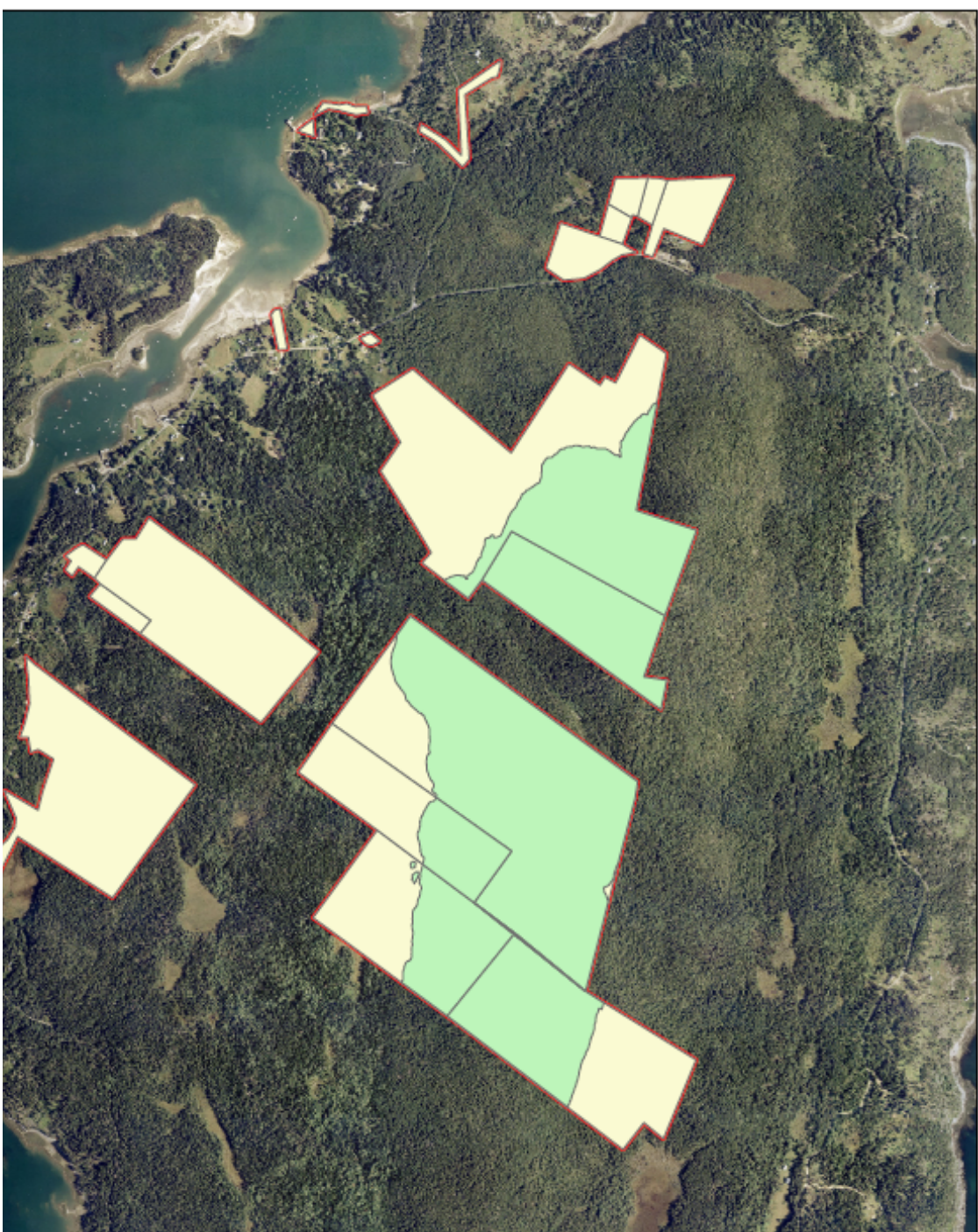


Figure 8: Town-Owned Lots near Mt. Champlain

The blue highlighted areas in Figure 8 show the area that is above 300 feet in elevation. On Isle au Haut, the Zoning Ordinance does not allow construction or tree cutting above 300 feet, so these areas are off-limits in terms of development. Fieldwork was done in order to assess the areas under 300 feet of the larger lots around Mt. Champlain. The results are shown below in Figure 9.

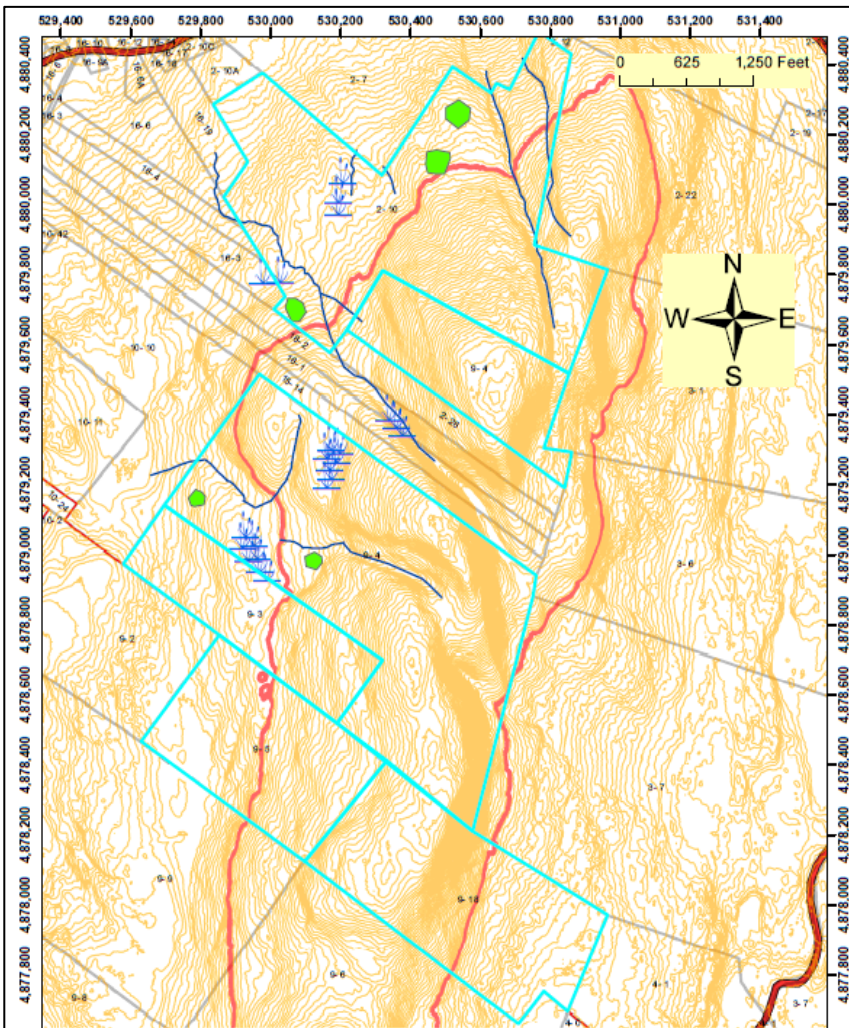


Figure 9: Land Feasibility of Lots near Mt. Champlain

These lots were found to have minimal amounts of soil that would be suitable for septic systems, or any kind of development. The green areas in Figure 9 represent the areas with usable soil, and the blue lines represent streams in the area. It was determined that it would not make sense to develop these areas due to lack of good soil, as well as extreme inaccessibility to this part of the island. However, a possible use of this land could be forest management. The trees on the island

are old and subject to insect infestation and disease, and many of them are dead or blown-down, which could represent a real danger if there ever were a forest fire. Selective cutting could help reduce this danger.