

An Analysis for Campground Potential in Cape Scott Provincial Park

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<http://www.hickerphoto.com/picture/cape-scott-provincial-park16621.htm>



<http://www.panoramio.com/photo/168056>



Introduction

Cape Scott Provincial Park is located on the northern tip of Vancouver Island. This Provincial Park is a remote and beautiful area that I have hiked before. The park is approximately a total of 22018.53 hectares in area. Wilderness is second to none and the scenery is magnificent. The geography of the area is mixed. In some locations the coastline is rugged and rocky, while other spots are full of nice sandy beaches. The nearest town for accommodation is Port Hardy, Port McNeil and Port Alice (BCParks). I decided to do my project on the area because having the chance to camp in this park would be awesome. There are very few campgrounds or areas that allow you to camp and I became interested in finding new locations for potential campsites. From experience of hiking the park, three main obstacles and preferences came to mind while thinking of locations for campsites. The first was distance from roads. This was because the closer to a road a campsite is; the more suitable it would be for campers packing tents and food and this is why a 50 metre buffer was created. The second outlier was distances to lakes. As a camper it would be a preference to be as close to a lake as possible, so a 100 metre buffer was created. The third outlier was the risk of flood lands. Areas that are floodlands were ruled out with a 25 metre buffer. The slope was classified into three categories, 0-2 degrees, 3-5 and anything higher than 6. The 0-2 degree slopes were potential campsites with some possible issues surrounding them, the 3-5 degree slopes were the most suitable areas for a Campsite and anything higher than a 6 degree slope was ruled out. The scope of this project was to find potential campsites in a Provincial Park that offers limited areas for over night use. Convenient campsites for hikers that would enjoy a longer trip would benefit growth in tourism for the area.

Methods

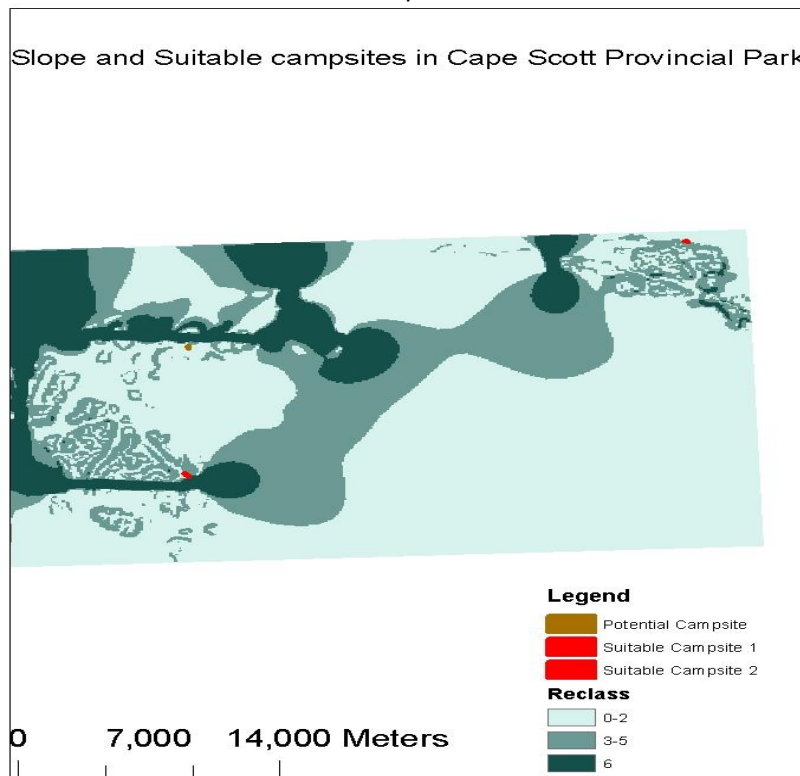
The UNBC GIS Lab Data Download site was used to gather my Trim data such as vegetation, contour lines, rivers, lakes, floodplains and roads. The Cape Scott Provincial Park boundary line was accessed through the UNBC data bases from the labs manual of GIS 413. The data was then zipped into .SAIF files and translated for use in ArcMap. The data from all different grid zones were merged according to their file type. For example, roads were merged with all roads and lakes were merged with all lakes. Once this was finished, data was re-projected into NAD_1983_UTM_Zone_10N using the project management data tool. Once the data was on the same projected coordinates, I clipped each file separately to the Cape Scott Boundary layer. Then the contours were converted into a DEM

and a Slope. Once the slope was created, using the reclassified tool I used 0-2degrees, 3-5degrees and 6 as my classifications. Degrees 3-5 were most suitable, 0-2degrees had potential and 6 was deemed not suited. Once this was made, I changed my raster data back into vector data for analysis. Buffered the lakes 100metres, the roads 50metres and floodplains 25metres and then they were intersected for a complete analysis. Once the suitable campsites were apparent, I exported each individually and classified the three. I selected the features, exported the data and then changed the colours for display.

Results

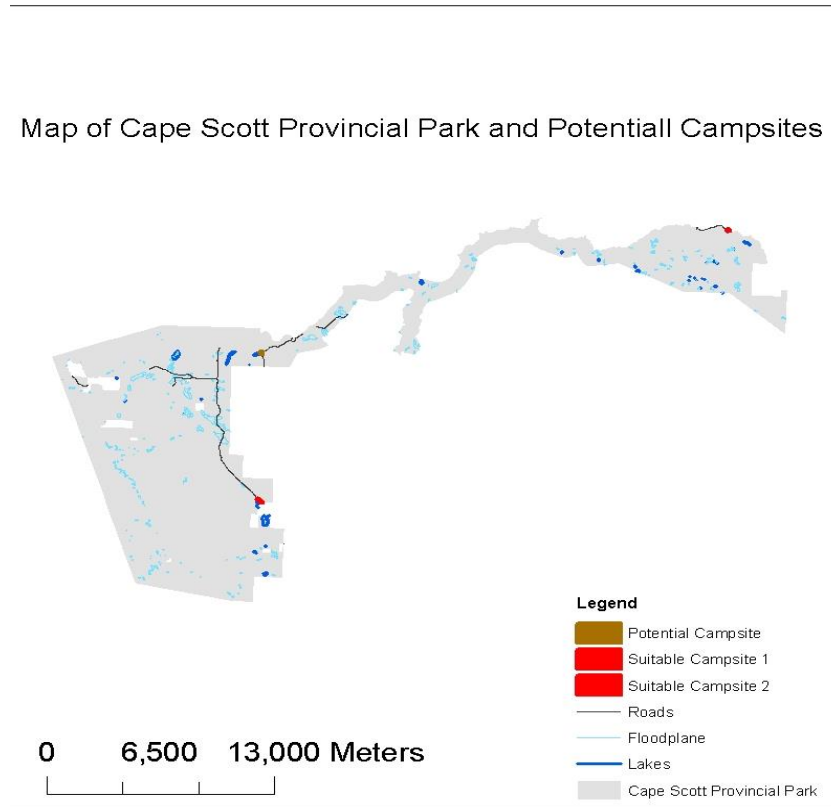
The final result was three suitable campsites in the Provincial Park. Two of the three are deemed to be suited for good campsites and the third is under the potential campsites categories. Overall the data shows campsites in locations that can be suited for public use. In table one, is the different classifications that were created for slope in the Provincial Park. The three classes are clear and concise in order to recognise the locations suitable for campgrounds.

Map 1



In map two is a analysis of the Provincial Park. It displays the floodplains, roads, lakes, the boundary and the campsites. This map gives a representation of the data gathered and displayed within the Cape Scott Provincial Park.

Map 2



Conclusion

The Provincial Park does have limited areas for campsites but possible locations can be analysed using GIS. Issues with the raster data did have an effect on a better analysis in the area. I would have preferred to display the work in raster, but ran into obstacles. Other additional data could have been added as well to further the confidence of the results. For example data such as clear cut areas and/or less dense forest covered areas would have benefited the camping locations. The data displayed does give a representation of possible campsites and displays two that met all four categories of slope, distance to lakes, roads and from floodplains. The area of Cape Scott is a great place for a hike in the wilderness and more accessible areas for campers would be a great idea for this Provincial Park. Providing accessible campsites will help grow the tourism industry and bring attention to one of the prettiest hikes and Provincial Parks in British Columbia.

Sources

BCParks. (2013). "Cape Scott Provincial Park". Ministry of Environment.

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UNBC. "UNBC GIS Lab Login". University of Northern British Columbia.

http://www.gis.unbc.ca/resources/data_download/login.php