

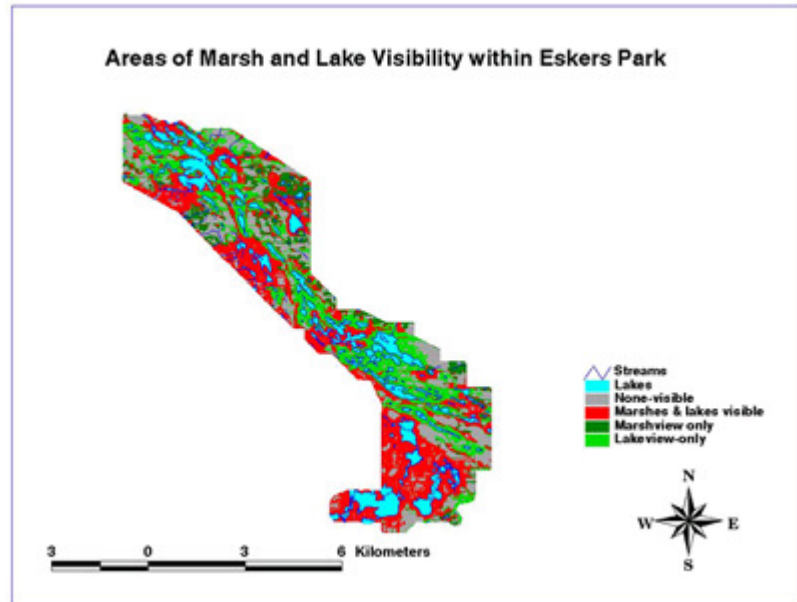
Data Analysis of Eskers Provincial Park

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The purpose of this project was to look at a simple data set, and perform some sort of analysis using the skills obtained in GEOG 413.

After importing the .e00 files for the area known as Eskers Park, we clipped the data so a view could be created for just the area within the park boundary.

Initially, the plan was to GPS the trails of the region, to do a slope analysis of trail steepness and slope stability. However, it was difficult to obtain proper data with the TRIMBLE unit, this could have been due to the satellite positioning at the time, the dense cloud cover, or, simply, incorrect use.

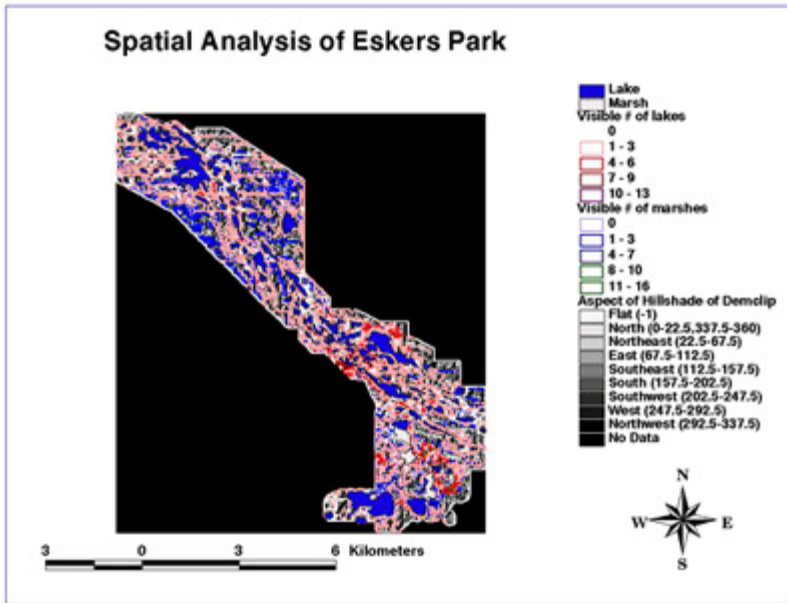


So, after looking at the data, we decided to perform a visibility analysis, to see which slopes had views of lakes, marshes, or a combination of the two. This can be seen in the following map output:

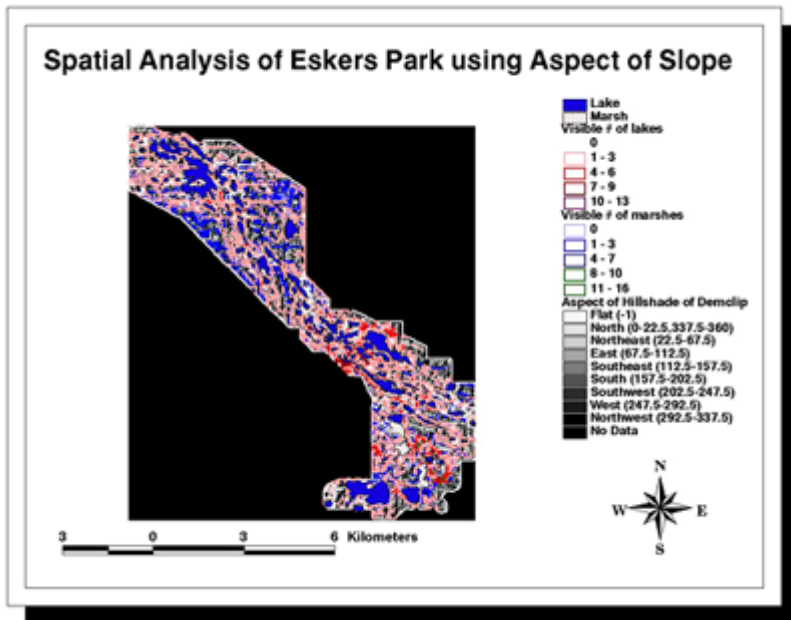
After visibility indexes were created, spatial analysis was invoked, to obtain info on what area of the park (in square metres) it was possible to view what number of lakes and marshes, using lake visibility codes as the columns, and marsh visibility codes for the rows, the following table was created:

Marsh Visibility Code	0 Lakes	1 Lake	2 Lakes	3 Lakes	4 Lakes	5 Lakes	6 Lakes	7 Lakes	8 Lakes	9 Lakes	11 Lakes
0	188621.576	102441.310	23957.248	5880.283	2224.851	1014.270	490.778	261.747	85.437	88.155	32.718
1	33307.531	29053.839	8543.688	1210.581	490.778	261.747	163.582	85.437	85.437	32.718	0.000
2	3224.744	9455.818	3402.714	719.805	98.155	85.437	85.437	0.000	32.718	0.000	0.000
3	4418.884	4024.963	1884.848	752.523	229.029	0.000	32.718	32.718	32.718	0.000	0.000
4	1832.230	1798.512	1570.483	719.805	458.058	85.437	32.718	0.000	0.000	0.000	0.000
5	817.982	817.982	588.821	523.484	259.802	294.488	0.000	32.718	0.000	0.000	0.000
6	785.242	498.058	163.582	294.488	130.874	229.029	32.718	32.718	0.000	0.000	0.000
7	458.058	327.184	163.582	130.874	261.747	163.582	32.718	0.000	0.000	0.000	0.000
8	85.437	98.155	294.488	229.029	163.582	327.184	32.718	0.000	0.000	0.000	0.000
9	0.000	0.000	85.437	130.874	229.029	458.058	0.000	32.718	0.000	0.000	0.000
10	0.000	32.718	130.874	98.155	130.874	327.184	0.000	0.000	0.000	0.000	0.000
11	0.000	0.000	0.000	32.718	85.437	261.747	0.000	0.000	0.000	0.000	0.000
12	0.000	32.718	0.000	0.000	0.000	85.437	0.000	0.000	0.000	0.000	0.000
13	0.000	0.000	0.000	0.000	32.718	130.874	0.000	32.718	0.000	0.000	0.000
14	0.000	0.000	0.000	0.000	0.000	32.718	0.000	32.718	0.000	32.718	0.000
15	0.000	0.000	0.000	0.000	0.000	32.718	32.718	0.000	0.000	0.000	0.000

Then, using hollow outlines for the polygons, the visibility codes were projected over the hillshade:



And the aspect:



In order to create a greater understanding of why there was such a chance of lake or marsh visibility.

In conclusion, it should be noted that this analysis of visibility does not take into account line of sight due to vegetation.