



Probability of nest structure use in early nesting period relies upon:

- Aggregate Visual Obstruction Measurement (VOM) {Positive relationship – the higher the aggregate VOM the higher the probability of occupancy}.
- Size of the open water area around the structure {Quadratic effect with a increase of a factor of 1.3 for every hectare increased to an asymptote of 16 hectares}.

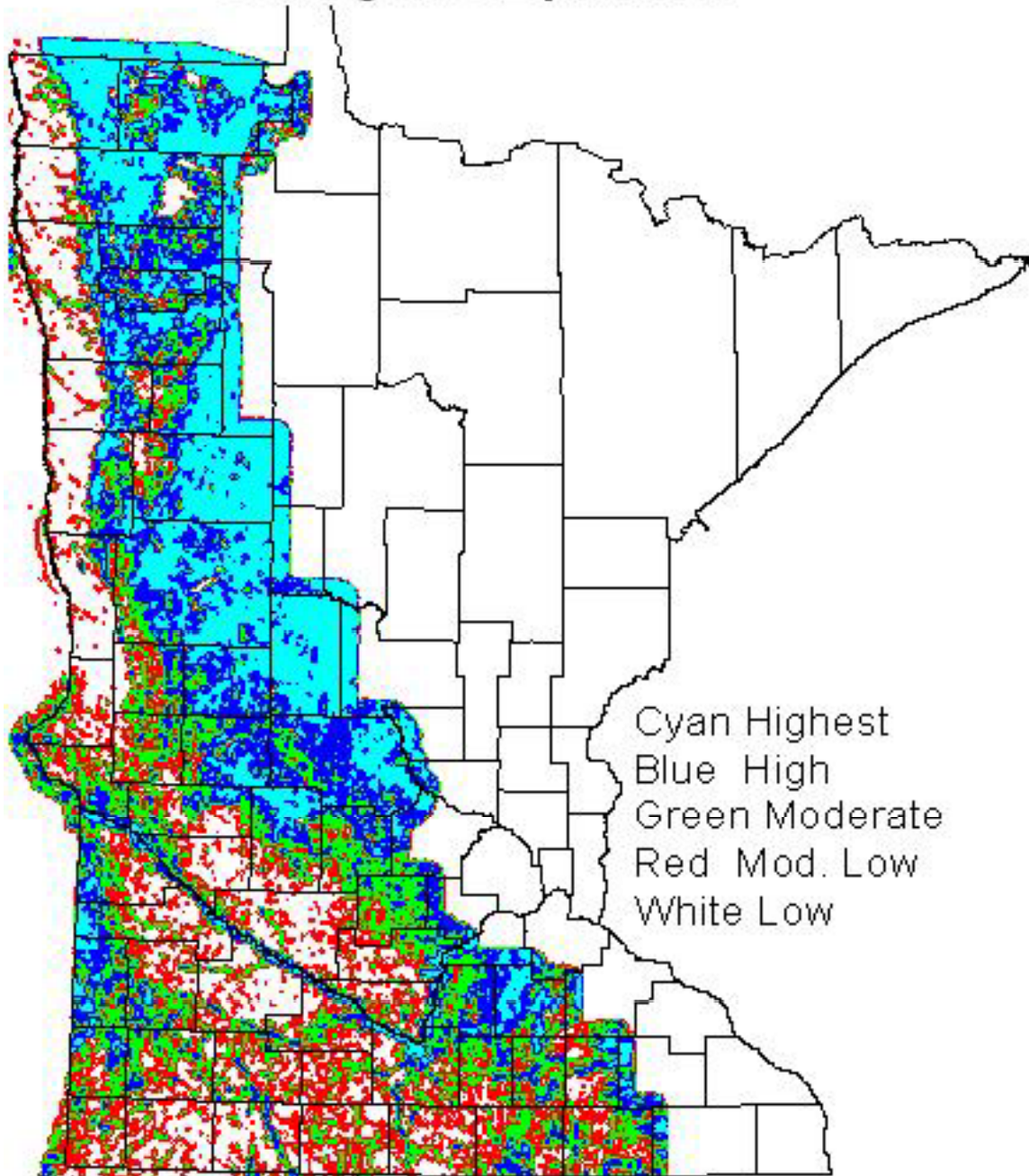
Assignment of VOM to each habitat

Habitat	VOM
Grassland	1.16
Cropland	0.001
Hayland	0.8
ROW	0.75
Woodland	1.7
Odd areas	1.7
Shallow wetlands	0.67
Open water	0
Areas w/no prob. nesting	0

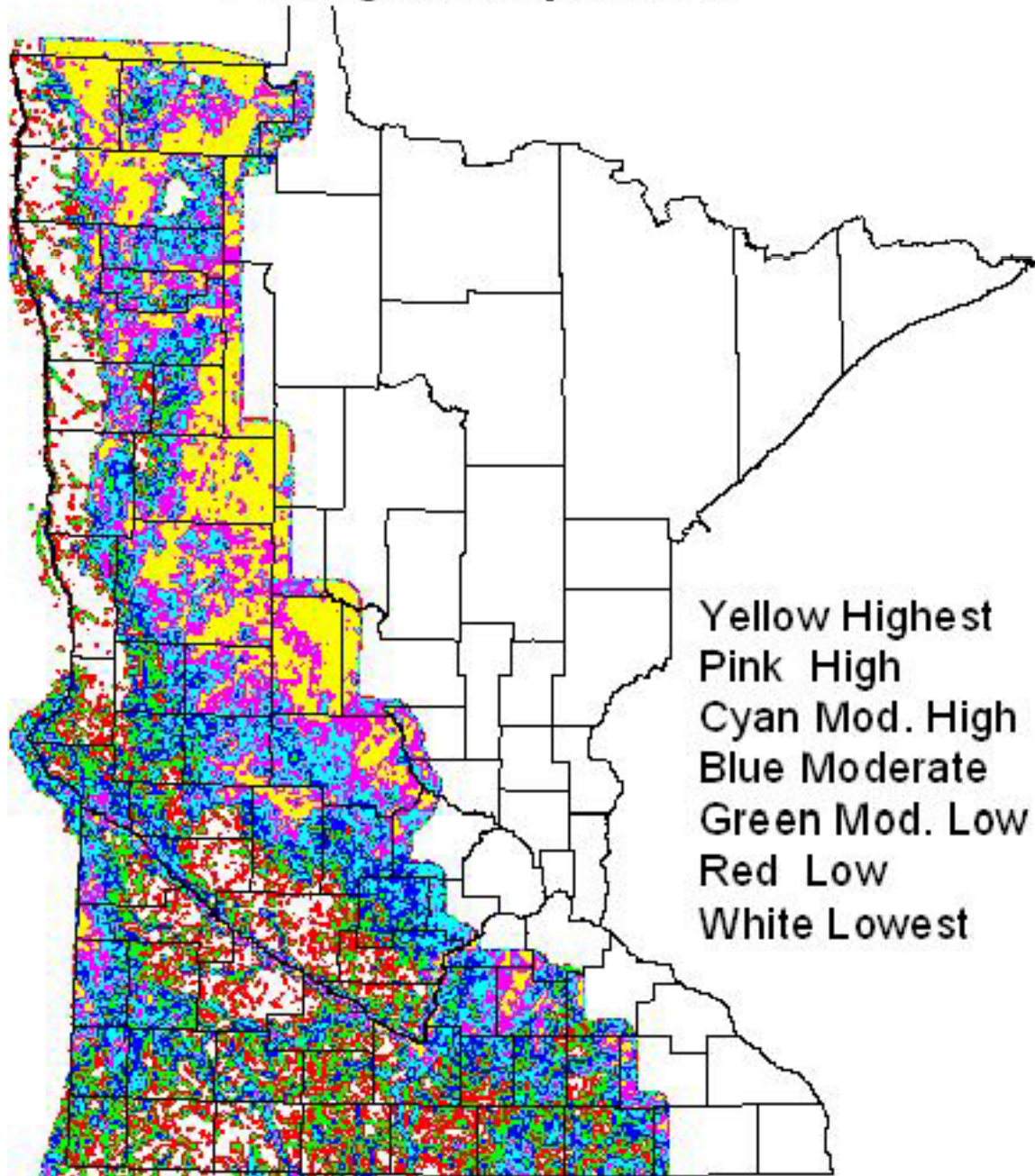
The Next Steps

- Calculate an aggregate VOM for every pixel based upon the amount of each habitat within a 1.6km radius.
- Calculate the amount of open water for every semi-permanent wetland and lake based upon the NWI data.
- Increase the aggregate VOM based upon the amount of open water in the wetland basin.
- Have the Biometrician convert those numbers to probability of occupancy.

Aggregate Robel 5 Categories Equal Area



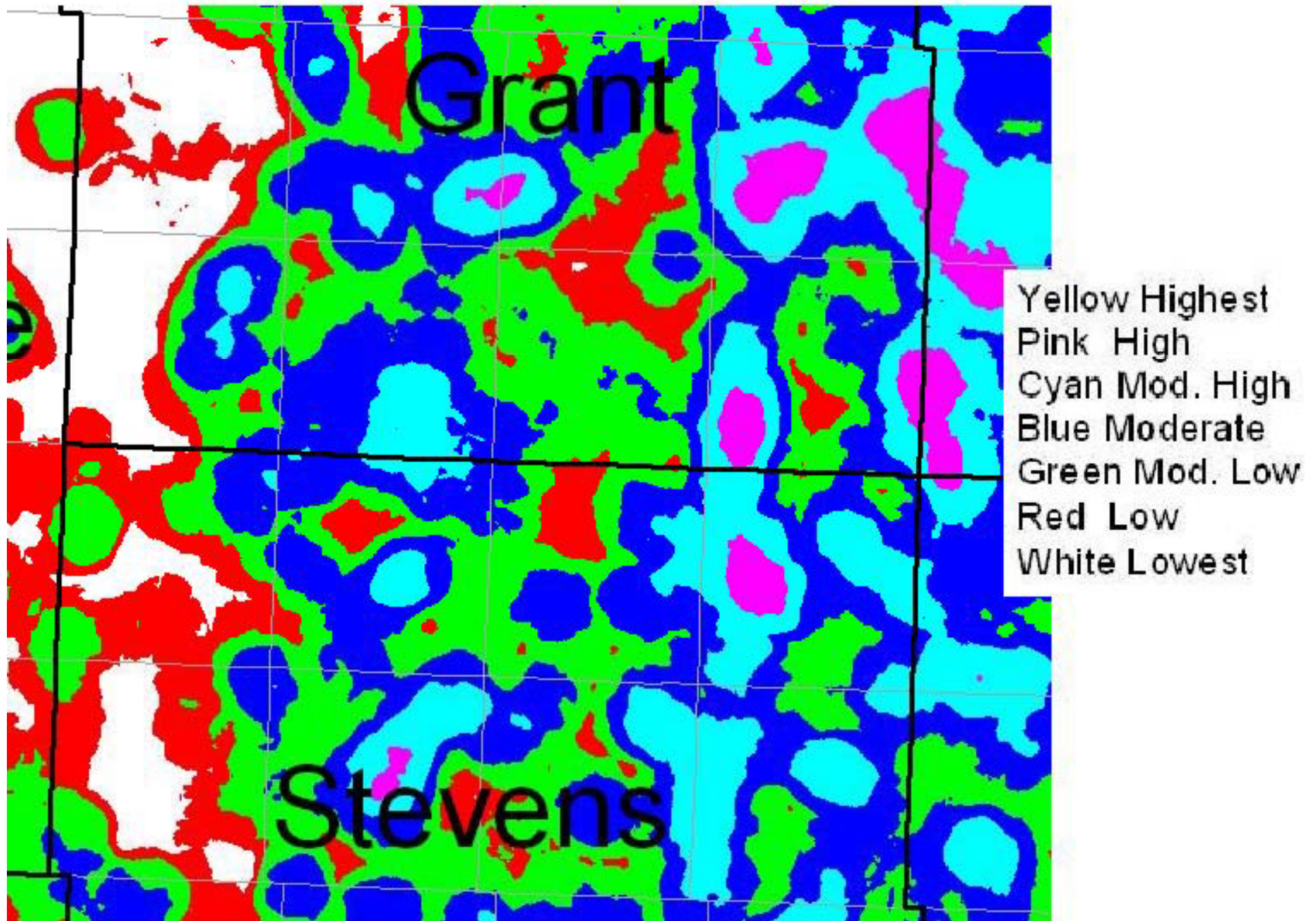
Aggregate Robel 7 Categories Equal Area

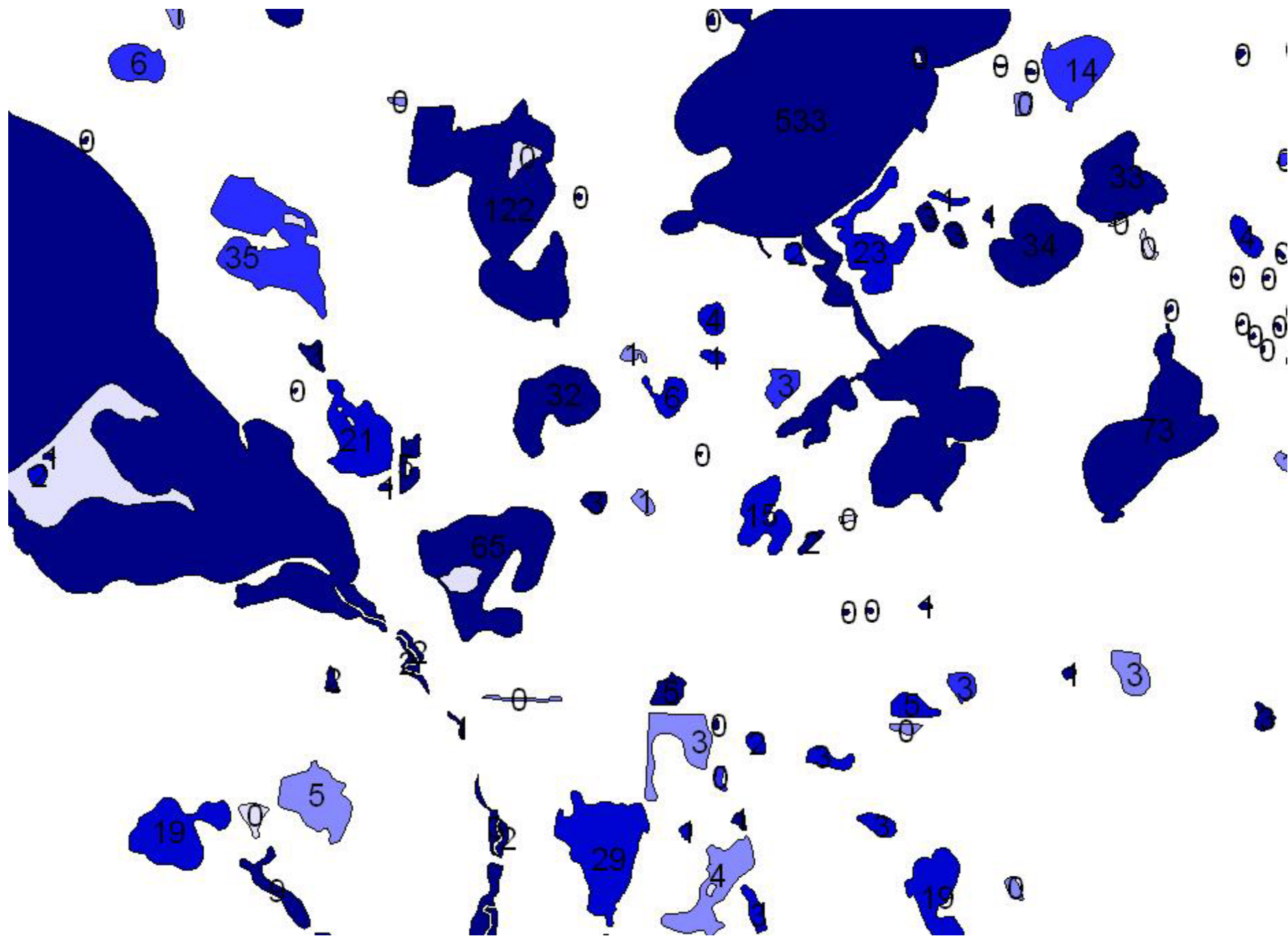


Yellow Highest
Pink High
Cyan Mod. High
Blue Moderate
Green Mod. Low
Red Low
White Lowest



Aggregate Robels in your study area





Open Water HA	Increase Probability of Use
0.63	1
1.63	1.3
2.63	1.6
3.63	1.9
4.63	2.2
5.63	2.5
6.63	2.8
7.63	3.1
8.63	3.4
9.63	3.7
10.63	4
11.63	4.3
12.63	4.6
13.63	4.9
14.63	5.2
15.63	5.5

