

Tessa Vu

Dr. Wan

GEOG 4140-001

03 March 2021

Lab 5 Deliverable 2

In the regression analyses using both explanatory variables, why do you think that prediction accuracy in King County was so low?

Table 1: OLS Forest and Population

| | |
|--------------------------------------|-------------------|
| OBJECTID | 7 |
| GEOID | 53033 |
| Sight Normalized by POLY_AREA | 0.019174 |
| Percent_Forest | 55.641899 |
| Population | 1931249 |
| Shape_Length | 489553.553965 |
| Shape_Area | 5673216659.168814 |
| Estimated | 0.028021 |
| Residual | -0.008847 |
| StdResid | -1.432169 |

Looking at the data for King County above, the prediction accuracy is low because there is a negative residual at -0.008847, and according to the legend, it is a little over one standard deviation away from being accurate. When the OLS was run, the Sight Normalized by POLY_AREA was recorded at 0.019174 whereas the system calculated the Estimated value at 0.028021, the residual is the difference between the two. King County's population approaches

two-million with the value 1,931,249 citizens because Seattle, a metropolitan city, is located within the county. So, that large population made the OLS model predict a higher number of Bigfoot sightings than what actually occurred and this is the reason behind the low prediction accuracy.