Slide 1 – Opening Slope

* Basic info

Slide 2 – Background

* Our study area is located on the Halifax waterfront
* The area between Barrington Street and the water has over 300 trees that are managed by Develop NS.
* Trees provide a variety of benefits to an urban setting such as:
  + Cooling of the environment, absorbing stormwater, enhancing aesthetics, and notably, absorbing carbon dioxide and other pollutants
* Although we do not know the direct cause of the health of trees on the waterfront, we hypothesize that tree’s closer to roads will be in less healthy condition in respect to crown condition and trunk damage.

Slide 3 – Research Question

* The question we intent to answer is “is the overall health of trees at the waterfront negatively impacted by close proximity to a road?”

Slide 7 – Results

* The following are our results

Slide 8 – Maps

* The map on the left shows the crown condition of trees at the waterfront and the right map shows trees with trunk damage of trees at the waterfront
* The majority of the trees on the waterfront show good crown conditions, noted in green, and for trunk damage most trees tend to have no trunk damage, noted in orange.

Slide 9 – Point Graphs

* The point graphs are denoted by values of one and zero
* The graph on the left showing crown condition data, has values of “one” representing trees with both “good” and “fair” crown conditions. Zeros represent “poor crown conditions”.
  + Trees classified as “good” or “fair” were found throughout all distances, lessening when further than 100m away from the nearest road
  + Trees classified as “poor” were all found within 100m from the nearest road
* The graph on the right showing trunk damage data with values of “one” representing trees with no trunk damage, and “zero” as trees with trunk damage
  + The trees with no trunk damage were found throughout all distances
  + Trees with drunk damaged were noted primarily within roughly 80m from the nearest road.
* Ideally the line of best fit would look like \*DRAW AN S\*

Slide 10 – GLM and Hosmer-Lemeshow

* According to the generalised linear model, both the crown condition and the trunk damage are shown to be insignificant \*POINT TO VALUES\*
* Although both of the show insignificance, they do show a negative slope
* The p-values for both crown condition and trunk damage from the goodness-of-it test are insignificant
  + This means that the GLM used was appropriate for this dataset

Slide 12 – Conclusion

* At the Halifax waterfront, the distance trees are from the nearest road show no significance on tree health
  + This concludes our hypothesis is wrong
* The scope of the data set was possibly not large enough to show any variability
* For future research, conducting an analysis between near roads trees and trees secluded away from road for 100’s of meters may show more of a significance