CIVE 442 Tool 1 Flowchart

Assumptions
Peaks at rush hour times (8am-9am, 4pm-6pm)
Idling kept at a minimum
Pollutant percentages are for modern cars with modern regulations
Cars are driving past the area at 60 mph, effected area is a one mile segment

Inputs	Outputs		Relationships
Cars/hr	CO	0.045%	Cars exhaust ~0.03 m^3/s, so these percentages can be used to determine the total pollutants in a minute
	NOx	0.15%	
	HC	0.03%	
	PM	0.045%	

Inputs	Outputs		Relationships
Trucks/hr	CO	0.045%	Diesel Trucks exhaust ~0.4 m^3/s, so these percentages can be used to determine the total pollutants in a minute
	NOx	0.20%	
	HC	0.03%	
	PM	0.055%	

Uncertainty + Limits
Wind direction isn't accounted for in this tool
This airshed is calculated to be just the one mile section of highway that would affect the neighborhood, but there are many other factors that could affect it
Obstructions such as the wall between the highway and trees could dissipate some of the exhaust
The amount pollution coming from cars is generalized such that there might not be a correct exposure level