

#	Category	Footprinting Question	Calculation	Reference/Protocol	Notes	Calculation	Seattle Average	Reference
	<b>Transportation</b>							
	All Car Travel	What make and model car do you drive?	Car emissions are calculated using per mile factors specific to each car type, based on the GHG emissions protocol.	<a href="http://www.fueleconomy.gov/feg/download.shtml">www.fueleconomy.gov/feg/download.shtml</a>				
		Do you own a motorcycle or a scooter?	motorcycle emissions are calculated using an average per mile factor, based on the GHG emissions protocol.	<a href="http://www.ghgprotocol.org/DocRoot/7NmWvnZLT/BdCB73po4tL/co2-mobile.xls">http://www.ghgprotocol.org/DocRoot/7NmWvnZLT/BdCB73po4tL/co2-mobile.xls</a>			10500 miles/yr	<a href="http://www.wsdot.wa.gov/planning/wtp/datalibrary/Modes/milestraveled.htm">http://www.wsdot.wa.gov/planning/wtp/datalibrary/Modes/milestraveled.htm</a>
		What type of fuel do you use?	<b>MPG x Distance x Fuel Emissions</b>	<a href="http://www.fueleconomy.gov/feg/download.shtml">www.fueleconomy.gov/feg/download.shtml</a>	The US EPA Vehicle Database provides a combined Miles Per Gallon (MPG) estimate for your vehicle. It assumes 55% city and 45% highway driving, and includes the car's fuel type, thus providing GHGP emission factors for your fuel type.	456.5217391	Assume an average of 23 mpg, Therefore 12550 miles would translate to approximately 545 gallons	<a href="http://www.ghgprotocol.org/DocRoot/7NmWvnZLT/BdCB73po4tL/co2-mobile.xls">http://www.ghgprotocol.org/DocRoot/7NmWvnZLT/BdCB73po4tL/co2-mobile.xls</a>
		Approximately how many miles per year do you drive?	<b>Fuel Purchased x Fuel Emissions</b>	<a href="#">US GHG Inventory, Annex 2</a>	gasoline: 8.87 kgCO2/gallon; diesel: 10.15 kgCO2/gallon; biodiesel: 0 or alternate: 10.63 kgCO2/gallon: Multiply amount of fuel purchased by emission factors for fuel type. GHGP factors used for gasoline, diesel, and LPG. US EPA Voluntary reporting Program factors used for ethanol and biodiesel.	4049.347826	<b>4050 kgCO2</b>	Assume gasoline-powered automobile with efactor 8.87 kgCO2/gallon
	Commute	How many roundtrips do you travel per week on Washington State Ferries?	<b># Trips x miles/trip x eFactors</b>		Seattle-Bainbridge: 7.5 miles Seattle – Bremerton: 13.5 miles Seattle – Vashon: 3.4 miles Seattle – Vashon (Passenger only): 8.5 miles Seattle – Kingston: 5.6 miles  Ferry Emissions Factor: 0.37 kgCO2/pm Seattle – Vashon (Passenger Only): 2.29 kgCO2/pm			
		Do you use a vanpool or carpool to get to work?	<b>((# Trips x miles/trip)/passengers) x Efactor</b>	Transportation Energy Data Book: Edition 25. Davis, Stacy C. & Diegel, Susan W. U.S. DOE, 2006	Vanpool efactor: 342 gCO2/km: Emissions factors for King County vanpools and average carpools will differ.			
		How many roundtrips do you travel per week in a vanpool or carpool?			Assume average of 22.6 mpg for carpool cars			
		How many passengers ride in your rideshare, including you?						
		Approximately how many miles (roundtrip) is your rideshare commute?						
		How many roundtrips do you travel per week via King Co. Metro bus or another regional bus system?	<b># trips x miles/trip x eFactor</b>	Table 17:Energy Consumption : Details by Transit Agency (2004), <a href="http://www.ntdprogram.com/NTD/NTDData.nsf/DataTableInformation?OpenForm&amp;2004">http://www.ntdprogram.com/NTD/NTDData.nsf/DataTableInformation?OpenForm&amp;2004</a>	King County Metro efactor: 215 gCO2/pm: Assume same efactor for Sound Transit and Metro buses.	559	<b>560 kgCO2</b>	Assume 5 round trips of 10 miles each per week for a total of 50 miles per
		Approximately how many miles (roundtrip) is your bus commute?					Average commute trip = 10 miles	<a href="http://www.metrokc.gov/kcdo/vals/employer/ETCduties/survey/2003surveyguide.doc">http://www.metrokc.gov/kcdo/vals/employer/ETCduties/survey/2003surveyguide.doc</a>
		How many roundtrips do you travel per week via train or light rail?	<b># trips x miles/trip x eFactor</b>	<a href="http://www.GHGprotocol.org">www.GHGprotocol.org</a>	GHGP factors used for commuter train, intercity train and light rail. SCP uses: Intercity Train: 0.1909 kgCO2/pm Commuter Train: 0.1649 kgCO2/pm Light Rail: 0.1604 kgCO2/pm			
		Approximately how many miles (roundtrip) is your daily rail commute?						

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		How many roundtrips to work or school do you travel per week via bicycle, walking, or telecommuting?	N/A					
	Other Travel	Number of flights per year (count each leg separately)		<a href="http://www.GHGprotocol.org">www.GHGprotocol.org</a>	Airline travel emissions are calculated using the short, medium, and long haul flight factors described in the GHGP. A 2.7 multiplier is applied to compensate for the altitude, as described in the 1999 IPCC Special Report.		1,185,834	MgCO <sub>2</sub> e for Seattle air travel (2005 Seattle GHG Inventory, per Port of Seattle)
		I buy approximately this many gallons of fuel per year for my boat	# gallons x e factor	<a href="http://www.GHGprotocol.org">www.GHGprotocol.org</a>	The fuel used is multiplied by the GHGP emission factors.	2.049134209	2.05 MgCO <sub>2</sub> e	Equals approximately 4 flights/year
						2.258145898	2.26 tonsCO <sub>2</sub> e	
	Home Energy					2048.589959	2049 kgCO <sub>2</sub> e	
		Number of adults in your household	fuel type x annual use x e factor					
		Approximate number of square feet	annual use determined either by actual kWh/mo (or year) or \$'s/mo (or year)			4329.696	4330 kgCO <sub>2</sub>	PSE
		I spend approximately this much per year on heating fuel during heating season			Fuel Oil: .3426 gCO <sub>2</sub> /L Natural Gas: 5.306 kgCO <sub>2</sub> /therm Electric: .6 kgCO <sub>2</sub> /kWh		Average household consumption of 68 therms per month = 816 therms/yr	
		Approximately how much do you spend electricity per billing cycle (every two months)?		US GHG Inventory, Annex 2; Seattle City Light			9011 kWh	Seattle City Light
						5406.6	5406 kgCO <sub>2</sub>	
	Waste Reduction					tons waste * 240 kgCO <sub>2</sub> /ton	Average waste generated per resident = 2.7lbs/day	
		My household puts out approximately this much garbage per week	(# tons/yr)*efactor	<a href="http://epa.gov/climatechange/wywd/waste/downloads/fullreport.pdf">http://epa.gov/climatechange/wywd/waste/downloads/fullreport.pdf</a>	Greenhouse gas created by garbage is calculated using the composition of household waste and applying the appropriate emission factor (mixed solid waste = 0.42 MTCO <sub>2</sub> E/Ton) from exhibit 8-6 in the EPA document, "Solid Waste Management and Greenhouse Gases." Use national averages from EPA WARM Model: MSW Landfilled: 240 kgCO <sub>2</sub> /ton Mixed Recyclables Recycled: -500 kgCO <sub>2</sub> /ton Mixed Organics Composted: -110 kgCO <sub>2</sub> /ton	118.26	118 kgCO <sub>2</sub>	
						16511.49378	16511 kgCO <sub>2</sub>	