

CARIP/Carbon Neutral Progress Report Reporting Year 2018

Supporting Documentation Contracted Emissions Template

LOCAL GOVERNMENT
City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1
PROJECT DESIGNATE
Levi Higgs, Principal Consultant, Agile Energy Management Direct 604-788-4538 LeviHiggs@AgileEM.ca
RATIONALE
<p>An estimation methodology for hired equipment contractor emissions is being utilized for 2018, as actual emissions for some contracts over \$25,000 have not provided fuel usage values.</p> <p>The City has identified four main contract areas that deliver traditional municipal services:</p> <ol style="list-style-type: none">1. Cascades Recovery Inc. and Supersave Disposal provide recycling depot container collection and recycling services;2. Sierra Waste Services provide residential solid waste and recycling services;3. Maple Leaf Disposal provides waste and recycling collection services at City facilities;4. Smithrite (GFL) provides waste collection services at the Public Works Yard;5. Waste Connections provide waste and recycling collection services for special events; and6. Individual Hired Equipment. <p>Contractor emissions associated with the delivery of traditional municipal services by Sierra Waste Services, Supersave Disposal, Maple Leaf, and Waste Connections have been included in our mobile fleet emissions reporting spreadsheet, as fuel usage and vehicle type information was provided for 2018. Contractor emissions associated with the delivery of services by Cascades Recovery, Smithrite, and Hired Equipment were estimated by from total kilometers and hours driven, respectively.</p> <p>The hired equipment contracted emissions, with the exception of equipment used outside of the defined traditional service boundaries or for construction rather than maintenance activities, is listed in the table below by traditional service area.</p> <p>Option 3 is the estimation methodology used:</p> <ol style="list-style-type: none">1. Hired equipment records sorted to exclude out of scope contracts;2. City equipment operating records assessed to determine average consumption factors in litres per charge hour or kilometers driven for each equipment family;3. Consumption factors used to estimated fuel consumption for contractor or hired equipment;4. BC GHG emissions factors applied to calculate GHG emissions.

CONTRACTED EMISSIONS	
Option 3: Vehicle/Equipment Type and Kilometers or Hours of Usage	
Traditional Service Area	Estimated Annual GHGs (tonnes)
Drinking, Storm and Wastewater	409
Solid Waste Collection, Transportation and Diversion	25.6
Roads and Traffic Operations	85.5
Parks, Recreation, Arts, and Cultural Services	16.9
Corporate Operations	4.5
Total	541.5