



CEA and its partners will work with commercial and large residential developers to establish a Waste Cooking Oil Bin green initiative program. This program will reduce sewer maintenance costs and help lower regional Greenhouse Gases (GHG'S). Fats, Oils and Greases (FOG's) are prevented from entering the sewer system. Damage to pipes is stopped and chemical input to the Waste Water Treatment Facility is reduced. Household grease (FOG's) can be recycled and turned into a valuable resource called Biodiesel.

- Currently, it is estimated that 1M kgs of FOG's enter the CRD's liquid waste stream. Over 60% of these FOG's can be attributed to residential sources.<sup>1</sup>
- FOG's clog pipes, treatment screens, cause back-ups and overflows, cause odour and environmental problems.
- Large costs are attributed to FOG treatment and sewer system maintenance.
- Since 2004 through 2009, there have been 9 costly incidents of sewer system flow obstructions within the CRD directly attributed to FOG's, each of which was a health and/or environmental concern.<sup>2</sup>
- The EPA estimates that within the United States:
  - 70% of sewer plant blockages
  - 30% of pump station failures
  - and 43% of Sanitary System Overflows are a direct consequence of FOG's in the liquid waste stream.<sup>3</sup>
- According to *Olaf Hansen* of the U.S. EPA, 80% of sewer system overflows in San Francisco occur as a result of FOG blockages, costing the city ≈ \$3.5 million annually.<sup>4</sup>

\*\*Currently there is no data available for Canada, however based on the above information, Victoria is subject to a disposal rate of one tenth of the total FOG's in the San Francisco sewer system. **At what cost??**

#### Working together as a community....

- These bins will prevent costly FOG's from entering the liquid waste stream.
- The FOG's we collect become Feedstock for the creation of Biodiesel.
- For households within the CRD – every 10 litres of Biodiesel used to displace petrol diesel prevents 2.1 kg of CO<sub>2</sub>e from entering the atmosphere.<sup>5</sup>
- For the CRD as a whole – 10,000 L of biodiesel equates to ≈ 2.1 tonnes of CO<sub>2</sub>e not absorbed by the atmosphere which in turn reduces a region's total GHG emissions, quantified by the Community Energy and Emissions Inventory.

To find out how to get bins installed in your area, contact [Rick@CowichanEnergy.org](mailto:Rick@CowichanEnergy.org)

<sup>1</sup> [www.crd.bc.ca/wastewater/sourcecontrol/residents/fats-oil-grease.htm](http://www.crd.bc.ca/wastewater/sourcecontrol/residents/fats-oil-grease.htm)

<sup>2</sup> CRD Regional Source Control Program\_Five-Year Review (2004-2008). Report No. 5104004.00 (March 2010). Don McCallum. Morrison Herschfield Ltd. Retrieved on 19/10/2011 from [www.crd.bc.ca/wastewater/sourcecontrol/documents/DRDRegionalSourceControlProgramFive-YearReview2004-2008.pdf](http://www.crd.bc.ca/wastewater/sourcecontrol/documents/DRDRegionalSourceControlProgramFive-YearReview2004-2008.pdf).

<sup>3</sup> Partenan, William E. "Fats, Oils, Grease To Green Fuel." Stantec Consulting Inc. (2008). Retrieved on 19/10/2011 from [http://www.ncsafewater.org/Pics/Training/AnnualConference/ACo8TechnicalPapers/SpecialTopics/ACo8ST\\_Tues1100\\_Partenan.pdf](http://www.ncsafewater.org/Pics/Training/AnnualConference/ACo8TechnicalPapers/SpecialTopics/ACo8ST_Tues1100_Partenan.pdf)

<sup>4</sup> Greer, Dianne. "Recycling Local Waste Oil and Grease Into Biodiesel." Biocycle Energy. (July 2010), 56-59. Retrieved on 21/10/2011 from Academic Search Premier.

<sup>5</sup> <http://www.ec.gc.ca/ges-ghg/default.asp?lang=En&n=AC2B7641-1>