

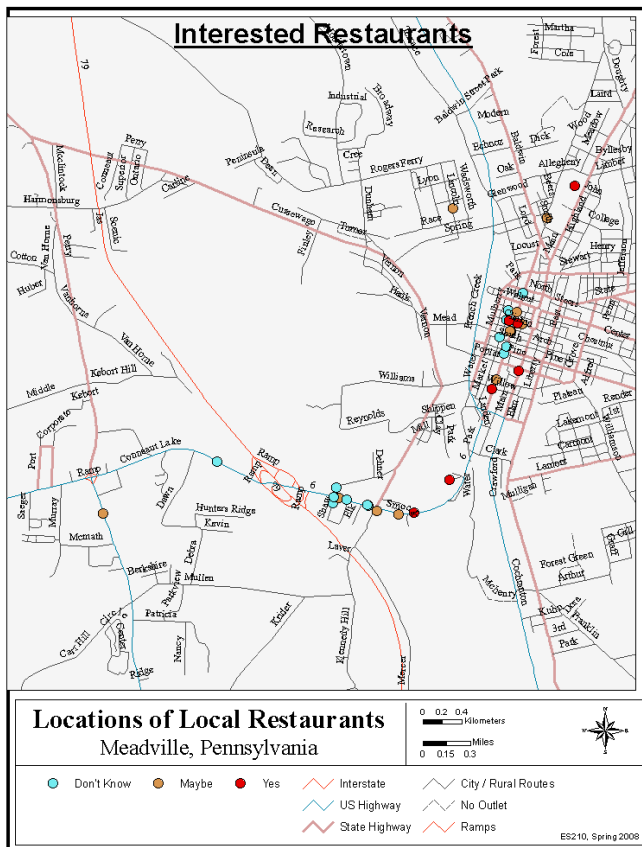
Course, internship, independent study, or other means by which the project was completed

ES210, Spring 2008

Brief (100-150 words) narrative describing the report. Describe in terms that will be understood by the general public.

Biodiesel is a renewable biofuel that can be produced from waste cooking oil. In its pure form, or mixed with petroleum diesel, biodiesel can be used in standard diesel vehicles without engine modification. We estimated the amount of waste cooking oil produced annually in Meadville, PA, and we canvassed 56 local restaurants to determine their willingness to participate in a biodiesel program. Nine restaurants are potentially willing to contribute their waste cooking oil, providing a total of 614 gallons per month. Nine additional restaurants were interested in the program, and would thus provide 494 additional gallons per month, bringing the potential total available raw material to 1108 gallons per month. Based on 13,296 gallons of potential fuel could be collected annually, the potential value of the produced biodiesel, at \$3.92/gal is \$52,000. Costs of biodiesel production, labor, supplies, and equipment depreciation totaled \$32,000, thus providing the City of Meadville with a net annual savings of approximately \$20,000.

Attach 1-3 images that may be appropriate to displaying the project on the CEED website





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Biodiesel