Report submitted for July – December 2012 reporting period

UTC Project Information	
Project Title	Assessment of a new screening model for use in siting near-road NO2 monitors
University	University of Washington
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Funding Source(s) and Amounts Provided (by each agency or organization)	PacTrans: $30,000 Dept. of Ecology in-kind funding: $30,000
Total Project Cost	$60,000
Agency ID or Contract Number	UW 62-4882
Start and End Dates	Start: 06/16/2012 End: 06/15/2013
Brief Description of Research Project	Near-road monitoring of nitrogen dioxide (NO2) in major urban areas in the U.S. will be required by 2013. It is not yet known exactly how many urban areas will be in attainment of the new NO2 air quality standard, due to a lack of historical near-road monitoring information. The answer is sensitive to the exact siting of these monitors with respect to the roadway and EPA's siting guidance for near-road NO2 monitors is not yet officially established. In this project we will test the feasibility of a relatively new air quality model, the Quick Urban Industrial Complex (QUIC) model as a practical and economical screening tool for assessing near-road NO2 monitoring sites in a complex urban environment. Using the QUIC model, predictions of nitrogen oxides concentrations will be made at locations near Interstate 5 in Seattle. Model performance will be assessed by comparing predictions with accompanying measurements using a mobile monitoring platform.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	An RA has been hired and work has begun on the model development. We have acquired the QUIC model from Los Alamos and have been able to successfully run it on a relatively simple geometry that includes a building located next to a highway and a simple street canyon. We have also obtained building footprints for Seattle from the UW library (WAGDA) and associated building heights from Google in order to assess several candidate NO2 monitoring locations in downtown Seattle near I-5. To date, we have not encountered any major issues associated with using the new software. By the end of this calendar year, we plan to run the model at several candidate locations and rank these locations by predicted NOx level.
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links · Reports · Project website	Assessment Of A New Screening Model For Use In Siting Near-Road NO2 Monitors http://depts.washington.edu/pactrans/wp-content/uploads/2012/12/PacTrans-20-624882-Larson-Timothy-Small-Project.pdf