## **Transportation Pooled Fund Program**

Project Title: Climate Change Impact Assessment for Surface Transportation in the Pacific Northwest and Alaska		
Project Manager and Phone Number:	Project No:	Project is:
Kathy Lindquist (360) 705-7976	TPF-5(191)	PLANNING X R&D
Reporting Period: April 2011 – June 2011	Multi Year Project Yes	

**Description of Work Performed and Progress:** 

## Write up for TPF-5(191) Northwest Transportation Consortium

http://www.pooledfund.org/projectdetails.asp?id=414&status=4

The TPF-5(191) "Climate Change Impact Assessment for Surface Transportation in the Pacific Northwest and Alaska" Research project is underway. The Oregon Transportation Research and Education Consortium (OTREC) and Alaska University Transportation Center (AUTC) are conducting the research project. The project team is a multi-disciplinary group of researchers from Oregon and Alaska consisting of John MacArthur, Oregon Transportation Research and Education Center; Dr. Philip Mote, Director Oregon Climate Change Research, Institute, Oregon State University; Dr. Jason Ideker, Assistant Professor, Oregon State University; Dr. Ming Lee, Assistant Professor, Department of Civil and Environmental Engineering, University of Alaska Fairbanks. The team brings unprecedented expertise in climate change, transportation operations, and infrastructure from Oregon State University, Portland State University, and the University of Alaska Fairbanks.

Update on the Region X Transportation Consortium: Climate Change Impact Assessment for Surface Transportation in the Pacific Northwest and Alaska project

- Contract signed January 2010
- Project Team had kick-off meeting to discuss scope of work and roles.
- Technical Advisory Committee kick-off conference call was held on March 10, 2010.
- Technical Advisory Committee conference call was held on December 13, 2010.
- PSU faculty and graduate student have conducted a literature review
- PSU faculty and graduate student have developed a preliminary survey (http://its.pdx.edu/climatechange/index.php). The survey was sent to DOT, city, county and other contacts in the four states. This survey records the current state of adaptation activities.
- PSU faculty and graduate student have outlined a transferrable method to assess climate change vulnerability on their multimodal surface transportation systems with geographic information systems, using the City of Portland, Oregon as an illustrative case. This method allows for preliminary vulnerability identification, prioritization and impact assessment, and can be used as a base for more advanced analysis and scenario testing.
- Phil Mote (OCCRI OSU) has developed climate projections to characterize past and future trends in climate variables using
  best available data. New climate model scenarios are being made available in 2010, regional modeling results for North
  America from the North American Regional Climate Change Assessment Program (NARCCAP). OCCRI obtained and
  analyzed the NARCCAP simulations with the "Reanalysis (Global Model)."
- Jason Ideker (OSU) has completed literature review for determining vulnerability of critical infrastructure, with particular focus on design and maintenance of infrastructure. Dr. Ideker has completed a draft of his task.
- Ming Lee (UAF) has completed work on a GIS database of the Pacific Northwest and Alaska highway networks.

Draft report was sent to the TAC for review on June 9, 2011. A conference call is scheduled for July 11<sup>th</sup> to discuss comments.

STATUS AND COMPLETION DATE:	
Contract signed and work is underway.  Percentage of work completed to date for total project  Project is: 95 %	
_on schedule behind schedule, explain:	
Expected Completion Date: July 31, 2011	

**Project Manager: Kathy Lindquist**