

## **1. HEADER**

**Proposal Title:** Feedback loops between residents, governance, policy, and natural resources in the Portland-Vancouver metropolitan area

**PI:** Dr. Anita T. Morzillo

**Department:** Forest Ecosystems and Society

**College:** Forestry

### **Award Information:**

*Type:* General Research Fund (GRF)

*Date of Award:* Fall 2011

*Amount of Award:* \$6,976

## **2. SUMMARY OF THE HYPOTHESIS OR GOALS AND THE SCHOLARLY WORK/ACTIVITIES PERFORMED USING THE GRF SUPPORT**

This research is a contribution to the Portland-Vancouver Urban Long-Term Research Area Exploratory (ULTRA-Ex) pilot study. The Portland-Vancouver ULTRA-Ex is funded by the National Science Foundation (NSF) and the US Forest Service, and is a collaborative effort between Portland State University, Oregon State University, Reed College, Washington State University, and Metro.

The overall research question is “How do human governance and biophysical systems respond interactively over time to both press and pulse disturbances in urban socio-ecological systems?” The suite of ecological and social findings compiled thus far suggests a need to expand evaluation of feedback loops between ecological and social research to also include urban residents. To do this, I have designed an “über-survey” tool that incorporates information from each of the six research segments that make up the Portland-Vancouver ULTRA-Ex (streamsides vegetation, water quality, stormwater management, natural resource governance and policy, land-use change, environmental stewardship and education).

The proposed research addresses four questions:

- 1) What circumstances for and sources of information about natural resources are exchanged between residents and governance institutions (from the resident perspective)?
- 2) What land use characteristics are preferred by residents, and what experiences and social attributes contribute to those preferences?
- 3) At what scales do residents prefer particular land use characteristics, and what factors affect those preferences?
- 4) What knowledge about and attitudes toward green infrastructure exist, and to what extent do they affect individual decisions about choosing a residence?

A general hypothesis of the ULTRA-Ex is that Portland residents are more likely than Vancouver residents to participate in activities related to natural resources, have more positive attitudes toward green infrastructure, and have preference for environmentally friendly land

use across scales. To test this hypothesis, a mail survey was sent to residents on both the Portland and Vancouver sides of the Columbia River in the Portland-Vancouver metro area. Differences between Portland and Vancouver residents are being evaluated for each of the four research questions.

### **3. ADDITIONAL SCHOLARLY ACTIVITIES THE GRF FUNDING MADE POSSIBLE FOR THE INVESTIGATOR(S).**

This GRF already has contributed to additional scholarly activities. As a result of the ongoing data collection, in 2012, supplemental funding was received through the National Science Foundation for an additional phase of the study. This phase involves a comparative analysis with ULTRA-Ex projects in Boston, Raleigh-Durham, Tampa, and Los Angeles focused on preparation for climate change across the five metro areas. Preliminary results have been reported at multiple scientific conferences by key members of the broader Portland-Vancouver ULTRA-Ex team in 2012, and manuscript drafts and presentation of final results are in progress.

### **4. EXPENDITURE OF GRF FUNDS**

GRF funds mainly were used for purchasing of survey supplies and postage, along with minor travel expenses to-from Portland for meetings with on-site collaborators. Additional funds were contributed from sources at Reed College, Portland State University, and Oregon State University to assist with the data collection completed as supplemented by these GRF funds. Those additional funds contributed to survey supplies and mailing, as well as technician wages for data entry.

### **5. EXTERNAL FUNDING REQUESTS DEVELOPED AND SUBMITTED AS A RESULT OF GRF FUNDING**

To date, one proposal was submitted (#13-0337) and funding awarded (October 2012).