

# FY 2010 RESEARCH PROBLEM STATEMENT

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## TITLE ([more info](#))

**Mapping Culturally Significant Vegetation Along ODOT Highway: Implications for Archaeological Probability Modeling and Streamlined Project Delivery**

## PROBLEM (Description of need) ([more info](#))

While archaeological sites are relatively prevalent in Oregon, they are an important and nonrenewable resource vital to our knowledge of the past. Destructive impacts to archaeological sites can occur from highway construction and maintenance. Archaeological sites are protected under various state and federal laws and we as an agency have an obligation to protect them from unnecessary harm. As an ODOT archaeologist, I am tasked with just that responsibility. ODOT archaeologists have some tools at our disposal to identify known sites and we commonly hire consultants to perform field investigations to identify previously undiscovered archaeological sites prior to construction projects. However, archaeological materials are generally subsurface and therefore costly and time consuming to identify with possible negative impacts to efficient project delivery.

The archaeological record shows that both permanent and seasonal Native American habitation sites were commonly located near important natural resources. These natural resources commonly included culturally significant plants like camas, bull rush, lomatium and salmonberry to name a few. Predictive modeling based on the locations of culturally significant plants within ODOT right-of-way could greatly assist in identifying high probability areas for subsurface archaeological resources.

## PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY ([more info](#))

I propose a pilot program to identify one culturally significant plant common in western Oregon: *Camassia* spp. Also known as Camas, this starchy bulb was and continues to be a very important food for Native Americans residing in western Oregon. Camas plants have very distinct dusty lavender colored flowers which bloom in early summer. To conduct the research, I would travel the highways of western Oregon during peak flowering to identify clusters of camas flowers. I would then use my GPS unit to map the areas. These coordinates would then be transferred into ArcGIS as a layer. This layer could then be used in conjunction with our existing cultural resources database or as a stand alone layer for predictive modeling for project planning. Future research could involve other culturally significant plant types.

## BENEFITS [\(more info\)](#)

There will be multiple benefits: Primarily, the ability to predict archaeological probability will greatly aid in and streamline cultural resource management for ODOT project development. Secondly, the information could be shared with interested tribal nations to help bolster their own ethnobotanical researches and could lead to inter-governmental researches. Third, the data gathered could be correlated with known cultural resource information to provide a much broader cultural landscape which would benefit the Oregon Archaeological community at large. Fourth, this same concept could, in the future, be used as a pilot for other culturally significant resources predictive models such as high quality lithic material sources, high yielding shellfish gathering locales, and culturally significant viewsheds.

## CONTACT INFORMATION:

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Problem Statement Number: