

# **Technology Deployment Initiatives and Partnership Program** **Request for Funding FY 2003**

## **FHWA Strategic Goal Area:**

Productivity, Environment

## **Project Title:**

Soils Database Map with Texture, & Chemistry

## **Problem Statement:**

Revegetation of areas disturbed during highway construction is a fundamental part of successful erosion control. Revegetation of disturbed highway corridors using native species is still in the early stages of becoming a consistently implementable science. Ongoing projects to improve our ability to select appropriate species, and to monitor the effectiveness of past and ongoing projects, are proceeding on schedule. What has become clear is that the soil chemistry of sites across the northwestern states varies dramatically, and the soil itself is one of the primary determinants of success or failure of the revegetation efforts. What is needed is a map showing the major soil types across the northwestern three states (ID, OR, and WA), and a database tied to the various soil types, such that workers responsible for selecting appropriate seed species, mulches, and soil amendments can have an office level understanding of the area they will be working in. This will guide the type of site-specific investigation necessary to more efficiently use their time while collecting soil samples in the field, as well as developing the final revegetation prescription. Information in this form does not currently exist within the FHWA offices, but the expertise and data necessary to provide data in this format does reside with other federal agencies such as the Natural Resource Conservation Service (NRCS).

## **Proposal:**

Initiate a partnership with one or more members of the Natural Resource Conservation Service to use their data and expertise in preparing a soils classification map and database for use in the three states of Idaho, Oregon and Washington. This soils classification map and database will be used as an office level guide to prepare revegetation plans for construction projects. Different types of soil have different texture and chemistry, which consequently has a tremendous impact on the success or failure of revegetation projects.

## **Benefits:**

This effort will improve our understanding of the constraints imposed by different soil types, which affect our ability to successfully revegetate areas disturbed by highway construction. Further, this will be an additional contribution to the goals of the Federal Native Plant Conservation Committee (currently Plant Conservation Alliance), of which FHWA is a co-signer. When finalized, the results of this partnership can also be shared with Federal-aid Division offices, State DOT's, and other agencies involved in revegetation along rural highways.

**Resources/Cost:**

\$30,000

**Duration:**

Actual time to complete the final product is expected to be two years. The final product is anticipated by December 2004.

**Organization/Method:**

The champion will select a qualified individual or team to identify and compile existing information on soil types located in the states of Idaho, Oregon and Washington. The champion and expert(s), working as a team, will develop a map and electronic database for the soil types. The expert(s) will likely be an employee of another agency (such as the Natural Resources Conservation Service).

**Submitter:**

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**Date:** 20 December 2002

**Champion:**

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