

Technology Deployment Initiatives and Partnership Program
Request for Funding
FY 2002

FHWA Strategic Goal Area: Productivity, Environment

Project Title: Soils Database Map with Texture, & Chemistry

Problem Statement: Revegetation of areas disturbed by 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: To 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: First, to improve our (WFLHD) ability to understand the constraints imposed by different soil types, effecting our ability to successfully revegetate areas disturbed by highway construction. Further, this proposal would 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 State Division offices, State DOT's, and other agencies also involved in revegetation of roads and highways.

Resources/Cost: \$30,000

Duration: Two years (spanning FY 2002-03). Actual time to complete the final product is expected to be less than two years (final product by September 2003).

Organization/Method: 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 will then work with this individual or team through the development of a map and electronic database for the soil types. The individual will likely be an employee of another agency (such as the Natural Resources Conservation Service) with whom a reimbursable agreement can be arranged.

Submitter:

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Champion:

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