

# **NATIONAL SOIL INFORMATION NETWORK (SOILNET) CHARTER**

## **OVERVIEW**

This document charters a virtual science needs assessment, science delivery and management problem solution team to address National Forest and Grassland soil management issues. This charter defines the vision, virtual organization, program and operations framework for National Forest System (NFS) and Forest Service Research and Development (R&D) experts to address pertinent soil resource management issues, improve consistency and promote science-based land management. The team is composed of soil experts from both R&D and NFS. The team will provide input to R&D scientists; and will result in technology development and technical support to Forest Service field units and policy makers on all aspects of soil science applications and integration into forest and rangeland management. This program supports the Forest Service's organizational effectiveness strategic goal and supports the multiple benefits and ecosystem restoration strategic goals.

## **ISSUE**

The National Forest Management Act (1976) requires that Forest Service management activities not degrade the soil resource and that research and monitoring be conducted to ensure there will be no permanent impairment of the productivity of the land. Current soil quality standards and guidelines vary from region to region in ways that are not clearly tied to regional conditions. Stressors, such as critical loads, have already started to impact our soil resources, and other effects arising from climate change are on the horizon.

Forest Service managers need science-based technical information about soil processes and functions to meet soil resource management objectives. Additionally, NFS needs consistent monitoring methods that will withstand legal challenges. More effective communication is needed to communicate management needs for scientifically sound information and technology to R&D, and to disperse soil related R&D findings to NFS staffs to readily address resource management issues. Stronger communication and coordination are needed to address soil management as part of resource stewardship within the agency.

## **BACKGROUND**

The current NFS Soil Quality Standards and Guidelines were based on the best science, knowledge and experience at the time they were developed. The Soil Quality Standards are a basis for litigation and appeals topics. Since science and research results evolve, NFS standards will need to be periodically revisited and potentially updated.

## **VISION**

Fundamental soil productivity is the foundation of everything that is produced from any land base. Land managers need clear, accessible information on managing to protect and enhance soil productivity.

The vision of SOILNET is a Forest Service where leadership and technical specialists fully recognize the necessity for protecting and enhancing soil resources on National Forests and Grasslands and utilize the best available current scientific knowledge in management decisions.

## **ORGANIZATION**

The SOILNET program will be developed through coordination and capitalizing of existing R&D, NFS capabilities and staffs. The focus of the organization is national in scope. Any FS unit and staff can be engaged, providing a virtual laboratory for addressing soil resource issues. Short-term detailers, cooperators, partners, and contractors may be called upon for expertise. NFS units will develop project proposals along with associated support and funding to be considered by the SOILNET Technical and Steering teams.

The SOILNET organization is intended to facilitate communications between R&D and NFS to enhance science delivery. The products of the SOILNET are intended to initiate research and transfer research results that will assist natural resource managers in developing management practices, inform policy, and provide guidance in policy application. Guidance of SOILNET will be provided by a SOILNET Technical Team and a Steering Team. The SOILNET Technical Team is composed of a total of six members, three chosen from NFS regional soil program leaders and three chosen from R&D researchers. The Technical Team will collect and review NFS soil resource problems, questions and needs, and identify research activities, current or new, which would address them. The SOILNET Steering Team is composed of a total of six members, with permanent appointment for the NFS National Program Leader for Soil and the R&D National Watershed and Soil Program Leader.. Two positions will be rotated among regional soil program leaders, and two positions rotated among R&D researchers. The Steering Team will review the Technical Team suggestions, and prioritize them in accordance with the current FS Strategic Plan and FSM 2550 - Soil Management.

Technical and Steering team members will serve three year terms and rotate among NFS regional and administrative office's and R&D stations and work sites. Initial appointments on both teams will be for one, two and three years, such that NFS and R&D each have representatives for three, two and one year terms, staggering the first term. Thereafter, all terms will be for three years. This will process will provide continuity of experience on the teams.

Coordination of SOILNET is the joint responsibility of the NFS National Program Leader for Soils and the R&D National Program Leader for Soils. The Steering Committee recommendations will be reviewed by the Washington Office Directors of Watershed, Fish, Wildlife, Air and Rare Plants and Environmental Sciences Research and submitted to the R&D Station Directors for use in prioritizing research activities.

## **PROGRAM**

SOILNET will focus on the following areas:

Science Integration & Delivery:

- Provide information and technological solutions to meet user and public information needs.

Resource Monitoring and Data Management:

- Provide scientific and technical protocols for developing appropriate soil resource monitoring systems and advice for managing monitoring programs, data management and analyses, and reporting systems design.

Research & Technology Transfer:

- Provide research to address soil resource issues.
- Develop operational tools and technology for monitoring soil quality standards.
- Provide training and technical support to integrate soil research findings into natural resource management practices.

**OPERATIONS**

SOILNET is a virtual organization composed of NFS soil program managers, and R&D scientists working together to address soil resource management questions.

**Cooperation and Coordination:** The SOILNET Program requires continuing broad-based collaboration. Cooperation between NFS soil managers and R&D scientists, universities, other federal agencies, state agencies, and private research institutions is necessary to identify information needs and supply needed expertise and provides information.

**Technology and Information Transfer:** SOILNET will provide synthesis of existing research findings and provide technical products as requested and funded.

**Planning process:** On an annual basis, a coordinated plan will be developed to identify research problems and technology transfer needs to be pursued by SOILNET. The SOILNET Steering Team will review proposals and recommend a set of specific activities to pursue. The WO Watershed, Fish, Wildlife, Air and Rare Plants; and the Environmental Sciences Research Directors will review and approve annual recommendations.



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