Technology Training for the Natural Resource Conservation Service

Remote sensing is an ideal tool for collecting baseline data and mapping conditions over large areas because of its precision and growing capability. Federal employees need specialized skills to use this cost-effective tool. Working through a CESU agreement, the Natural Resources Conservation Service (NRCS) and West Virginia University (WVU) collaborated to train NRCS employees on how to use remote sensing software.

■ **Mapping ecosystems using aerial images.** This image of the Eastern Shore of the Great Salt Lake helped the participants map soils during the course. *(Suzann Kienast-Brown/NRCS and Tim Warner/West Virginia University)*

Remote sensing is the ability to acquire information about an object without physically being there. One example is using aerial or satellite photographs to create maps of ecosystems. The demand for remote sensing specialists is increasing as technology and use of computers grows. Creating a pool of employees who are well-

Great Lakes - Northern Forest Cooperative Ecosystem Studies Unit

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www.nedc.nrcs.usda.gov/catalog/ remotesenssoilsurvey.html

■ Project Type

Education

Technical Assistance

WEAVING PARTNERSHIPS • BUILDING KNOWLEDGE • SUSTAINING HERITAGE

■ **Career building.** Participants in the course advance their remote sensing literacy, making efficient soil mapping possible throughout the NRCS. *(Tim Warner/West Virginia University)*

versed in using geospatial imaging systems is integral to the success of science-based agencies such as the NRCS. Through trainings like those provided by this NRCS-WVU partnership, agencies can be on the leading front of remote imaging, research, and publishing. Creating opportunities in the agency to increase skills and meet others who are also interested in remote sensing builds a deeper sense of community within the NRCS as well.

Training for Land Managers

In 2005, the NRCS realized the potential of fostering remote sensing expertise within the agency. Providing professional development and career track opportunities for employees interested in remote sensing provided an avenue to diversify jobs and more efficiently map soils and their properties. Asking WVU and Utah State Univer-

sity (USU) to join them, the team developed a proposal and justification for the need to improve remote sensing training in the NRCS. The result of this request was the creation of a design team including WVU, the NRCS and USU, who developed a remote sensing course to teach to NRCS soil scientists. They taught a pilot course in July 2009 at the NRCS National Employee Development Center and feedback helped the NRCS finalize the content for a second training the following year. Participants observed and mapped soil composition, delineating soils and their properties, effectively surveying a broad landscape to update existing soil maps. Participants were enthusiastic about the success of the training. The integration of soil surveys, resource inventories, and mapping skills benefits both the individual and the agency.