# Landscape Inference Model (LSIM)

Background

In October 2005 the Texas State Office Soils program funded the additional development of a "Landscape Inference Model (LSIM)" using the techniques developed in the NGA World Soils Project and the CEAP Special Emphasis Watersheds for the North Bosque. This project is designed to develop and test the utility of GIS mapping technology developed in these previous projects for performing NRCS soil surveys at the 1:24,000 scale used in detailed soil survey (county level) studies. As part of this project we are utilizing a retired NRCS soil scientist to assist local teams and State Soils Staff in performing ground surveys and evaluations needed for testing and refining the computer mapping procedures.
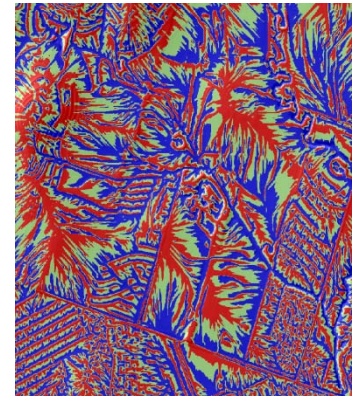
Digital imagery maps used to determine slope and routing of water
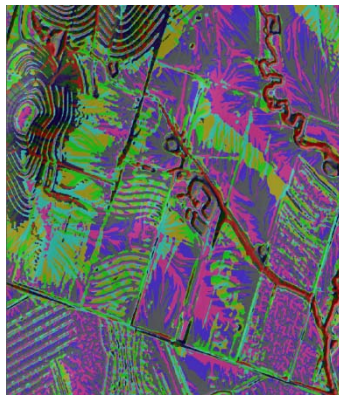
| IFSAR with slope | NAIP | Landscape Position |

Action

- A GIS assisted landform/landscape position technique is being used to assist in this pre-soil mapping process.
- Test areas are selected counties in Texas where current soil mapping programs are in progress.
- LIDAR (1.4 meter and IFSAR (5 meter) elevation data is being tested for assisting in defining map delineation lines for soil mapping.
- The program will evaluate hyper-spectral image techniques and tools to assist in the soil mapping process.
- These processes also have the potential to support conservation practice planning, design, and evaluation of appropriate practices.

Partners

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