

# FLH Partners for Geotechnical Asset Management

Federal Lands Highway (FLH) has taken a major step towards optimizing its program delivery by supporting transportation pooled-fund (TPF) study **TPF-5(111), “Development of Standards for Geotechnical Management Systems”**. The unique aspect particular to these standards is the ability to perform data exchange among state and federal agencies.

Data exchange across organizational boundaries presents an extremely valuable opportunity for FLH. The ability to easily and efficiently share existing geotechnical information with state and federal agencies can optimize all geotechnical-related resources and activities considered in program and project delivery and selection.

The standards also will allow geotechnical assets to be displayed geographically, which will enable their use in the FLH Geographic Information System (GIS). Geotechnical assets comprise data associated with subsurface characterization such as geophysical analyses and laboratory testing results, structural assets such as foundations and retaining structures, and geo-hazards such as landslides and rockfalls.

The FLH Divisions as well as State and other Federal Agencies have and continue to accumulate a tremendous amount of geotechnical data and information at a considerable cost. Previously collected geotechnical project data are not easily searchable or readily accessible, if available, and locating previous information is time consuming at best. Similar to State Highway Agencies (SHA's)

and other federal agencies, rehabilitation projects comprise the vast majority of the current FLH program, with this trend expected to continue and increase. Adequate data management systems are essential.

The development of a Geotechnical Management System (GMS) represents an important portion of the asset management network that will support our FLMA partners. Anticipated benefits from the GMS include 1) enhanced decision making by FLH and our partners, 2) improved program selection and project scheduling, 3) cost savings related to reduced field investigations, efficient reuse and sharing of existing information, and accelerated design schedules, 4) increased productivity during the planning and design phases, and 5) improved information and records management.

FLH has joined 11 SHA's, FHWA-Federal Aid, US EPA, US Army Corps of Engineers, US Geological Survey, and the United Kingdom (UK) Highway Agency, as well as academia, international professional societies, the private sector, and a public-interest nonprofit corporation funded by the National Science Foundation, in order to complete this multi-year pooled-fund study.

The pooled-fund study will develop frameworks, standards, and protocols to accelerate development of the GMS. Collaboration and information sharing across the industry will minimize redundancy. The project is scheduled for completion in mid-2007.

The activities of this pooled-fund study support two FLH technology strategies: Reducing the time and cost associated with infrastructure monitoring, maintenance, and renewal; and Incorporating new technology into daily work.

Further detail concerning this effort is provided at the Data Interchange for Geotechnical and Geoenvironmental Specialists (DIGGS) URL: <http://www.diggsm.org/index.asp>

The pooled-fund study can be accessed at the following URL: [http://www.pooledfund.org/project\\_details.asp?id=342&status=4](http://www.pooledfund.org/project_details.asp?id=342&status=4)

For more information, contact **Tom Lefchik**, FHWA Ohio Division at 614-280-6845 (email: [Thomas.lefchik@fhwa.dot.gov](mailto:Thomas.lefchik@fhwa.dot.gov)) or **Corey Bobba**, FHWA-Eastern Federal Lands Highway Division at 703-948-1406 (email: [corey.bobba@fhwa.dot.gov](mailto:corey.bobba@fhwa.dot.gov))

