

## Statewide Geohazard Inspection (STW SFY 2026-2028 GSM Inv, PID 122060)

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The project involves the statewide inspection program for all inventoried landslides, rock slopes, and abandoned underground mines (AUM) (including associated features) sites. Work will commence in two distinct phases. In the first phase, the Consultant will be responsible for a Field Inspection Training Program consisting of 3 to 5 counties. The counties for the training program will be determined after the consultant is selected and will be geographically spaced throughout the state. Once the Consultant is familiar with the inspection process, the second phase (Statewide Production Field Inspection) will be implemented. For Field Teams with previous ODOT experience, the Training Phase can be reduced or waived by the Department.

This project will begin on July 1, 2025 after the signing of the contract and may continue for a period up to three years. Office activities involving the review of ODOT's current database can begin in July 2025 following limited training by the Office of Geotechnical Engineering (OGE). Field inspection training by OGE will be performed in October 2025. Primary field inspection operations will be performed between November 1 and April 30 in SFY 2026, 2027, and 2028. The Department may request emergency inspections for sites between May 1 and October 31 if Consultant resources are available.

The Department will provide a list of geohazard sites which have existing electronic data (coordinates, site characteristics, photos, sketches, etc.) that can be downloaded utilizing the ArcGIS Field Maps application onto portable electronic devices (iOS required) supplied by the Consultant. The downloaded data will then be evaluated during the site inspection to identify the current conditions and determine if the site has been remediated, progressed in severity, or remains in the same conditions as the previous evaluation. As a minimum, each site inspection will identify and document the site characteristics compared to previous inspections and collect new site photographs. If conditions differ from the previous inspection, then the new characteristics will be updated or added to the field data and site sketches included. Specific field data shall be collected at each site depending on the type of hazard and the relative risk. Once a site inspection has been completed, the information can be uploaded using the ArcGIS Field Maps application.

When notified by the Department of a new geohazard, the Consultant will inventory the new site(s), collect pertinent information, collect GPS coordinate data, take digital pictures and compile all required data into the ArcGIS Field Maps application.

The Consultant should anticipate a minimum field inspection schedule of roughly 1,600 geohazard sites (including pilot work) in November 2025-April 2026 and 2,000 sites in November 2026-April 2027 and November 2027-April 2028. Breakdown of sites will be approximately 60% landslides, 20% rock slopes, and 20% AUM sites. Regional breakdown of inspected sites will be as follows: 70% in Districts 5, 9, 10, and 11; 10% in Districts 1, 2, and 12; 10% in Districts 3 & 4; 10% in Districts 6, 7, and 8. Additional sites for inspection will be added to the schedule pending any remaining funds.

In the event electronic failure of the field equipment occurs, information from completed field forms can be manually entered into the web application. Both data from field forms and any associated electronic files shall be submitted to the database. Electronic files (e.g.,

GPS, digital pictures, etc.) can be renamed using OGE's standard naming convention and submitted through the web application. The Consultant is responsible for developing internal procedures that its field team(s) will follow in case of electronic failure of field equipment.

When a rock slope rating is raised from a Tier 1 or 2 to Tier 3 or 4 (or a new rock slope site is rated as a Tier 3 or 4), the Consultant will be responsible for acquiring representative samples for Slake Durability Index testing per the ODOT Rock Slope Inventory Manual. The samples will then be transferred to ODOT for testing by OGE.

Training will be provided by OGE in each area of the inventories based on ODOT's manuals for Landslide Inventory, Rock Slope Inventory, and AUMIRA. This training will include office reconnaissance activities, field inspection methods, use of the ArcGIS Field Maps application, and use of ODOT managed data sources. Training will not include setup of any data sources, software, or hardware not supplied by the Department.

In the Quality Control (QC) program, the Consultant will be required to ensure proper data collection by its field team(s) including during office reconnaissance activities. The Consultant is responsible for the minimum review of 10% of inspected sites during SFY 2026 and 5% of inspected sites during SFY's 2027 & 2028 with additional reviews as warranted. Joint Quality Assurance (QA) field reviews will also be conducted by the Consultant and ODOT. If the work is found to be deficient, the Consultant will correct the work at no additional cost to the Department.

Inspections are expected to be performed within the ODOT Right of Way. Features that require inspection beyond the Right of Way will require coordination with the District Geotechnical Engineer.

The consultant will be responsible for the purchase or rental of all specialized hardware, associated software, equipment, and materials necessary for completion of the work that are not supplied by the Department. This hardware will include, but is not limited to:

- Handheld GPS system capable of accuracy to +/- 3 feet.
- Laser Range Finder
- GIS software

Specialized equipment and software will be purchased and charged as a straight-line depreciation over a 36-month period.

#### **Qualifications:**

- Field team(s) will consist of two persons, led by a geologist, geotechnical engineer or engineering geologist. One of the team members may be a civil engineer or senior field technician with extensive heavy highway (earthwork) construction experience. Field team(s) larger than two persons will be determined based on safety requirements.
- The Consultant will have experience in reading and interpreting (AUM) maps and creating AUM map overlays. The Consultant will also have experience in performing site reconnaissance of AUM sites and be able to recognize if a suspect feature is AUM related or not.
- Where necessary, Consultant will provide an inspection team that has received specialized training for rappelling and rope safety from an accredited school or

training facility. The Consultant will be responsible for all costs associated with this training. The personnel with this training do not need to be members of a production field team as the number of requests for rappelling will be limited throughout the contract.

- A project manager (PM) will assign work to the team(s), conduct field quality control reviews, compile data and information for each site, submit and check all information loaded into the database, conduct QC of submitted data, and report monthly progress in detail. The PM will be responsible for assignments and optimize efficiency of each field team. The PM will also be responsible for ensuring the data and information for each site submitted into the database is complete and correct.

**Deliverables:**

- Work Plan
  - Field Inspection Safety Plan (including personal and vehicular safety equipment)
  - QC Plan for Field and Office Activities
- Data from field inspections of inventory sites
  - Data submitted to ODOT ArcGIS Field Maps
  - Electronic deliverables including photos, sketches, and any field forms
- Progress reports
  - List of Geohazard Sites inspected (include site ID, County-Route-Section, if-applicable Previous & Current Tier)
  - Provide the lists on a Weekly, Monthly, Yearly, and Completed Project basis
  - Field team personnel hours (total)