

Department of Environment, Great Lakes, and Energy
Geologic Resources Management Division
FY26 Five Year Plan

Mission Statement

The mission of the Geologic Resources Management Division (GRMD) is to promote the best use of Michigan's non-renewable geological resources for their social and economic benefits while protecting associated resource values, property rights, the environment, and public health and safety. As part of this mission, the GRMD is responsible for proper handling, storage and retention of core materials extracted from the earth.

The Upper Peninsula Geological Repository (UPGR) holds a collection of drill core and cuttings with an emphasis on Upper Peninsula geology. Drill core samples are obtained by using specialized drilling tools which allow for discrete intact samples to be brought back up to the surface for geologic evaluation. Drill cutting samples are fragments of rock which are returned to the surface during the drilling process. The collection includes rock core and samples that were drilled or collected from state-owned mineral lease lands or have been donated to the GRMD by private mineral owners.

The purpose of the UPGR collection is to act as a "rock library" that is available to researchers and industry for geologic study. Some aspects of this study, may include:

- Critical mineral resource exploration and development
- Addressing issues related to water quality
- Contributing to research on climate change
- Enhancing the ability to identify geological hazards
- Supporting research of unconventional energy sources

The GRMD moved into the UPGR facility, located at 416 Avenue C, Gwinn, Michigan, in the fall of 2020. Located in Michigan's Upper Peninsula near the Sawyer International Airport in Gwinn, the collection is enclosed within in a 44,000 square foot warehouse at the former K.I. Sawyer Air Force Base. The collection was previously stored in two separate buildings that were in a state of disrepair and at maximum capacity.

The UPGR facility has significantly more space that allows for expansion of the collection and offers greatly improved amenities in a more modern, safe environment. It currently provides office space for three full-time and one part-time GRMD staff, which was not an option at the previous core storage locations. Additionally, beginning November 1, 2024, a formal lease will be in place between EGLE and the Michigan Geological Survey (MGS) to utilize a portion of the office space at the UPGR for four full-time MGS staff dedicated to research and work in the Upper Peninsula.

The UPGR collection is publicly available for viewing and sampling and contributes to an increased overall geological knowledge of the Upper Peninsula. This allows for informed decisions involving all aspects of our society from agriculture to energy, minerals, drinking water and environmental remediation.

The facility is open to the public by appointment and throughout the course of FY24, UPGR staff hosted visitors from private industry (domestic and international), local groups, universities, and state and federal agencies. Visitors booked 21 days in FY24 for viewing rock core, historic mine maps, and documents.

The following groups visited the UPGR in FY24 for research and/or academic enrichment (*private industry visitors are not included in this list*):

- United States Geological Survey
- Michigan Geological Survey
- Michigan Technological University
- Eastern Michigan University
- Central Michigan University
- Western Michigan University
- University of Wisconsin – Milwaukee
- University of Leoben, Austria
- League of Women Voters of Michigan (local league)
- State Representative Jenn Hill, Michigan House of Representatives 109th District

Facility Assessment

The Northern Michigan Geological Repository Association donated the current property and building to the Department of Environment, Great Lakes, and Energy (EGLE) in December of 2018. For reference, the GRMD obtained construction costs from other geological repositories around the United States and generally, the cost to replace this facility could be as high as \$12,000,000.

When EGLE accepted the donation of the facility, an assessment was completed by the Department of Technology Management and Budget (DTMB) to identify immediate upgrades and renovations needed to meet safety and operational standards. Using a one-time Legislative appropriation of \$1 million in FY18, EGLE and DTMB oversaw remediation and upgrades to the UPGR location that included activities associated with lead and asbestos abatement, remodeling, exterior repairs, and fire system upgrades to name a few. These activities were necessary prior to occupancy of the building.

In FY24, EGLE conducted an air exchange study to address radon levels as well as moisture and mold issues in the warehouse, and at the end of FY24 a Design-Build Contract was awarded to address the heating and ventilation issues in the warehouse and office space.

FY25 facility improvements will include several immediate-need projects including safety upgrades, electrical projects throughout the facility, cosmetic upgrades such as painting the interior of the warehouse and installation of racking for pallet storage, and the addition of a second restroom. The front door of the facility will be equipped with a State of Michigan (SOM) ID-badge reader and UPGR will be connected to the SOM network. These projects will be completed under a current \$1 million Work Project.

V. Implementation Plan

Use of the facility as a primary office location has expanded throughout FY24 from 1 full-time GRMD staff to 7 full-time GRMD and MGS staff working at the UPGR facility. It is necessary to ensure a safe working environment for State employees and lessees working within the building, as well as the growing number of visitors requesting to view the valuable rock core and samples for private industry research and academic enrichment.

While maintenance and day to day operations will be overseen by EGLE staff, the following items have been identified as necessary to enhance safety and keep the building in an acceptable operating condition.

Year 1 (Immediate Need): \$750,000

Outbuilding Design/Construction: Engineering, Design and Construction of an Outbuilding on the parcel. The UPGR facility currently houses property maintenance equipment (lawn mower, utility tractor with implements, snowblower, truck-mounted snowplow, etc.) that occupies a portion of the warehouse that is intended for rock core and sample storage. An outbuilding would house all facility and property maintenance equipment and provide easier access to the equipment without needing to maneuver across the loading dock ramps, as well as allow use of the current space inside the warehouse for its intended purpose.

Year 2-5: \$1,000,000

Roof: With the initial upgrades made to the UPGR, some roof work was completed such as sealing and resealing of seams, areas around roof ventilation, and other problem areas. The life of the roof has been estimated to range from 5 to 10 years. Roof replacement should be considered in special maintenance for this building. Recent estimates for a complete tear-off and new roof installation for the 44,000 square-foot building came in at \$1,000,000.