

GEOSCIENTISTS IN FORESTS FY2025 ANNUAL REPORT

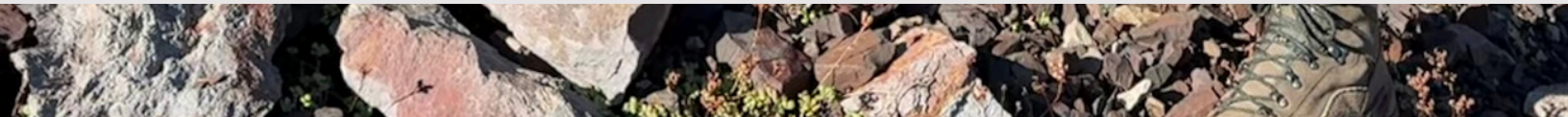


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Reilly Blackwell surveying streams on Prince of Wales Island in Tongass National Forests (Alaska)

Geoscientists in Forests
Annual Program Report
Fiscal Year 2025

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Jordan Reichers networks with Lima and Geoff at the USDA Forest Service Rocky Mountain Regional Office in Colorado.

Program Overview

The USDA Forest Service Washington Office Lands, Minerals and Geology (WO-LMG) in partnership with Stewards Individual Placements (Stewards), a program of Conservation Legacy, is proud to celebrate our work with Geoscientists in Forests (GSF). The GSF program continues a 25-year history of geoscience internships supporting the mission of the Forest Service Minerals & Geology group (formerly as GeoCorps America Program). GSF offers paid professional development opportunities to emerging geoscientists that leverage agency capacity to conduct critical geologic work in alignment with the administration's priorities.

The growing demand for mineral extraction on National Forest System lands, underscores the need for the GSF program and geoscientist expertise. This partnership enables the Forest Service to support energy exploration and production by investing on geoscience workforce development, advancing the administration's commitment to expand mineral and energy opportunities.

The GSF Program specializes in internships that address geoscience-related needs and management priorities. The program is designed for individuals aged 18-30, and veterans up to age 35. Projects involve predominantly field-oriented research, inventory and monitoring, and geoscience interpretation for agency staff and the public. The GSF program supports Forest Service priorities for Minerals and Energy Development, Partnerships, and Cooperative Federalism, while also advancing workforce development goals outlined in the Public Lands Corps Act through its partnership with Conservation Legacy to hire and train interns for careers in natural resource management. The GSF also supports responsibilities under key federal directives including Executive Orders 14154 (Unleashing American Energy), 14156 (Declaring a National Energy Emergency), and 14241 (Immediate Measures to Increase American Mineral Production), as well as Secretarial Memo 1078-005 (Expanding Energy and Mineral Opportunities on Forest Lands) , and the Public Land Corps Act's workforce development goals.

The primary purposes of the Geoscientists In Forests Program are to:

• Address critical geoscience needs on National Forest System lands;
• Foster geoscience career growth to support mineral and energy development in alignment with administration priorities;
• Provide on-the-ground geoscience training and immersive paid developmental experience for emerging geoscience professionals under Forest Service mentorship..

In FY2025, Stewards hosted five Geoscientists in Forests. These GSF participants:

• Completed 2,550 hours of service on public lands, providing $15,115.52 in in-kind support (see table below).
• Leveraged $15,138 in non-federal funding from the National Forest Foundation to assist with project work.
• Assisted with 15 planning projects supporting resource management needs for conservation and continued use.
• Mapped over 700 acres for quarry sites and legacy timber roads.





Jordan Reichers conducting cave assessments on George Washington and Jefferson National forests (Virginia)

Program Funding

Federal Funding		
Funding Source	**Location of Service**	**Amount**
25-PA-11061800-260	Willamette National Forests and	$25,110.00
25-PA-11011700-023	Nez-Perce Clearwater National Forest	$24,850.00
Federal Funding (Sub-Recipient of Geologic Society of America)	George Washington-Jefferson National Forests	$19,500.00
Federal Funding (Sub-Recipient of Geologic Society of America)	Tongass National Forests	$4,138.00
	Total Federal Funding	$73,598.98
	Est. Value of Service on Forest Service Lands	$88,714.50*
	In-Kind Support Provided to Forest Service	$15,115.52 (20% ROI**)
Additional Funding Sources Leveraged		
Non-Federal Funding (National Forest Foundation)	Tongass National Forest	$15,138.00

**Calculated using hours of service on Forest Service Lands and Value of Volunteer Time*
***Return on Investment calculated based on value added beyond federal investment.*



Reilly Blackwell conducting stream surveys on the Tongass National Forest (Alaska)

Administrative and Forest Service Priorities

The Geoscientists in Forests program supports the following priorities of the Forest Service and current administration:

Executive Order 14154 - Unleashing American Energy and FS Priority - Unleashing American energy and resource potential

- On the Nez Perce National Forests, GSF participants played a critical role in advancing mineral resource management. Their work focused on comprehensive monitoring and inventory efforts, which included surveying approximately 35 mineral material and abandoned mine land (AML) sites. These surveys were not just routine checks; they established foundational baseline data that will guide future decision-making. Participants developed a specialized survey tool for AML sites, integrated historical data from older maps, and standardized symbology for site documentation. This thorough approach strengthens Forest Service's ability to track mineral resources over time, identify potential hazards, support responsible use and management of minerals with energy priorities.

Executive Order 14156 – Declaring a National Energy Emergency

- Across all Forest Service units engaging with GSF, participants gain critical field experience in geosciences on federal public lands, preparing a skilled workforce to address urgent national energy needs. By conducting mineral inventories (i.e. rock sampling in Willamette and Nez-Perce National Forests), mapping quarry sites, and assessing geologic resources, participants developed practical expertise that supports informed decision-making for energy development and resource management. These activities directly contribute to the goals of EO 14156 by providing the foundational geologic data and professional capacity necessary to accelerate domestic energy projects. By building a pipeline of geoscience professionals and generating actionable resource information, the program strengthens the Forest Service's ability to implement energy directives responsibly and effectively.

Executive Order 14241 - Immediate Measures to Increase American Mineral Production

- On the Willamette National Forests, mapping quarry sites establish data on existing conditions to inform decision making for future mineral production activities. Participants conducted a comprehensive mapping and inventory of rock aggregate quarry sites across the Forest, documenting over 150 active and legacy sites and reviewing historical records to add 166 additional locations to the GIS database. This effort provided detailed information on rock quality, compliance with the Mine Safety and Health Administration (MSHA) standards, and disturbance perimeters, creating a robust dataset that informs pre-planning for timber projects and future mineral production activities. By establishing accurate baseline conditions and integrating geospatial analysis, the project assist Forest Service engineers and planners with actionable data to support sustainable mineral extraction. These measures directly contribute to the administration's goal of increasing mineral production through informed, science-based decision making.

Secretarial Memo 1078-005 – Expanding Energy and Mineral Opportunities on Federal Forest Lands

- GSF participants conducted multidisciplinary surveys on the Tongass National Forest and George-Washington and Jefferson National Forests. These efforts included mapping legacy timber roads to improve access planning for mineral development, assessing stream health to ensure water resources remain resilient during future extraction activities, and evaluating karst vulnerabilities to identify sensitive geologic features that require protection. These assessments and surveys are foundational to allow for expanded energy and mineral opportunities.

FS Priority - Partnerships and Cooperative Federalism

- The GSF program advanced Forest Service partnership and workforce development objectives outlined in the Public Lands Corps Act by creating pathways for young professionals to enter natural resource careers. Through a strategic partnership with Conservation Legacy, the Forest Service hired interns who gain hands-on experience in geoscience and resource assessment. These internships not only build technical skills but also cultivate the next generation of geoscience stewards who can respond to national energy priorities. By combining workforce development, shared stewardship, and actionable geoscience data, the GSF program strengthens the Forest Service's ability to achieve its conservation goals while fostering collaboration and community benefits.

Member Highlights

Reilly Blackwell

GSF Position: Hydrology Technical Assistant
Length of Service: 12 weeks
Location: Tongass National Forest, Alaska Region

During her Geoscientists in the Forests (GSF) AmeriCorps term, Reilly contributed to projects that safeguard streams, forests, and wildlife on the Tongass National Forest. She conducted stream surveys, in the Staney Basin to help the Forest Service understand channel morphology water movement, and fish habitat, critical data for restoration and management. Reilly also assessed sensitive karst landscapes, participated in dye-tracing studies on Heceta Island to map underground water flow, and evaluated road crossings across Prince of Wales Island to ensure fish passage. Her work extended to hands-on restoration in the Shaheen watershed, where she placed wood in streams to improve habitat, and helped monitor the success of previous restoration efforts. She also engaged the public through interpretive tours at El Cap Cave, sharing the story of the area's geology.

Reilly cites stream surveys in the West Wales area of Staney Basin as a highlight of her term, observing how her background in geology and hydrology enriched the team's understanding of landscape-stream interactions She also appreciated the chance to lead an early-season interpretive tour at El Cap Cave and her role in the physically demanding Shaheen Creek Watershed Restoration Action Plan.

Reilly's GSF experience also shaped how she sees her future career, giving her a clear view of how the Forest Service operates and the kinds of work available for geologists and hydrologists. It strengthened her interest in stream restoration —from project design to advanced monitoring—and in using mapping and survey tools to support natural resource management.

"This term helped me understand where my skills fit within the Forest Service and what kind of work I want to keep building toward."



Reily Blackwell engaging visitors with karst interpretation on Tongass National Forest (Alaska)



Alaska Region of Forest Service, Tongass National Forest is located in southern Alaska.

Member Highlights

Jordan Reichers

GSF Position: Watershed and Geology Program Assistant
Length of Service: 12 weeks
Location: George Washington and Jefferson National Forests, Southern Region

As a Watershed and Geology Program Assistant, Jordan Reichers described her experience as an inspiring and career-defining experience. “This program opened so many doors and gave me the chance to see how science directly informs resource management. I feel empowered and excited to continue building my career in natural resource management.” She also reflected on the breadth of her experience: “Working alongside scientists from multiple disciplines showed me how interconnected resource management really is, from water and soil to timber and wildlife. It helped me understand where my skills and interests fit into real-world conservation.” The program strengthened Jordan’s interest in water conservation, watershed management, and stream restoration, and clarified her next steps, including graduate school and specialized training in beaver-based and low-tech restoration techniques.

Jordan’s contributions to the Forest Service were equally significant. She developed and applied ArcGIS skills while mapping legacy timber roads across multiple districts, , creating a resource that will inform Forest Service planning for years to come. She also helped produce the Grace Furnace Existing Conditions Report, combining field surveys with GIS analysis to guide management of the 4,500-acre site. Additionally, Jordan assisted in cave significance assessments documenting hydrological, geological, biological, paleontological, archaeological, and recreational values.

Through the GSF program, Jordan gained technical skills and field experience while developing a deeper understanding of how multidisciplinary science informs conservation and resource management. Reflecting on the program’s influence on her future, she said: “My career goals were absolutely influenced. I came into the internship with an interest in water, but limited background in the physical skills and knowledge associated with watershed science and hydrology. Through the internship, I was able to experience multidisciplinary management strategies that involved not just water, but many other resources as well like timber, species management, and soil health. I distilled which disciplines peak my interest, and solidified the potential avenues I will take in graduate school. This internship opened up many career doors and enlightened my interests.”



Jordan Reichers conducts electrofishing to evaluate watershed health on George Washington and Jefferson National Forests

“This internship opened up many career doors and enlightened my interests.”



Southern Region of Forest Service, George Washington-Jefferson National Forests are located in Virginia.

Member Highlights

Lily Kuentz

GSF Position: Willamette Geotechnical Engineering Assistant
Length of Service: 20 weeks
Location: Willamette National Forest, Pacific West Region

As a Geotechnical Engineering Assistant, Lily Kuentz supported critical engineering and resource management projects on the Willamette National Forest. Her primary focus was developing a comprehensive a forest-wide rock aggregate quarry map and inventory, updating data on rock quality and MSHA standards, and disturbance perimeters. During the five months of the term, Lily photographed and mapped more than 150 quarry sites for timber project pre-planning and reviewed archived records of rock pit sites to add 166 additional sites to GIS dataset. Lily said, “I am most proud of this project for the sheer scale of inventorying we were able to accomplish considering the Willamette National Forest is 1,678,031 acres in size.”

Beyond quarry mapping, Lily assisted in site visits for two additional projects where engineering is in early stages for construction of aquatic organism passages (AOPs) in the Detroit Ranger District. These projects aim to improve stream connectivity and support fish passage through improved road infrastructure. Lily contributed to survey drilling on both sides of a fish-bearing stream to determine subsurface composition, work that directly supports watershed health and habitat resilience. For another larger project, Lily visited the site to help take measurements and mark drill sites for a drilling contractor.

Reflecting on her experience, Lilly shared she is interested in pursuing the work of soil scientists and hydrologists as a possible future career.

Lily plans to use her Segal AmeriCorps Education Award to obtain a wilderness medical certification to better prepare herself and qualify for field-based opportunities.



Pacific Northwest Region of Forest Service, Willamette National Forest is located in Oregon.



Lily Kuentz holding a lobster mushroom found in the Willamette National Forest, Oregon.

“This experience exposed me to several career fields I had not previously considered during my academic education. Working with the USFS broadened my understanding of the many roles involved in forest management.”

Member Highlights

Ian Baker and Jason Wright

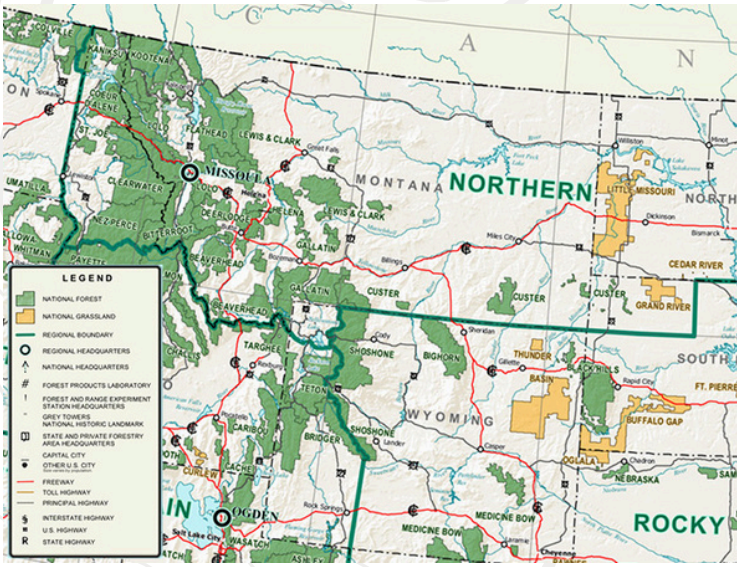
GSF Position: Geologist/Physical Science Technician
Length of Service: 12 weeks
Location: Nez Perce-Clearwater National Forest, Northern Region



Ian Baker showcasing a rock sample collected during surveys.

As Geologist/Physical Science Technicians Ian and Jason conducted extensive surveys of approximately 35 mineral material and abandoned mine land (AML) sites on the Nez Perce-Clearwater National Forest. Their work included developing a survey tool specifically for AML sites, integrating historical data from older maps, and standardizing the symbology to ensure consistency across datasets. These improvements provide Forest Service staff with accurate, actionable information for managing mineral resources and addressing potential hazards, supporting informed decision-making for future development and reclamation efforts.

Beyond technical surveys, Jason and Ian contributed to public education by creating an interpretive display highlighting the diverse minerals found in the Forest. The interpretive display allows visitors to learn about local geology and engage with mineral samples, fostering a deeper understanding of the region's natural resources and the importance of responsible management.



Northern Region of Forest Service, Nez-Perce Clearwater National Forest is located in Idaho



Interpretive Rock Display created by Ian and Jason for Nez Perce-Clearwater National Forests (Idaho)

Future Outlook



Lily Kuentz collects sample during quarry surveys on Willamette National Forests.

In 2025, the Geoscientists in Forests (GSF) program demonstrates the critical role geoscience professionals play in supporting sustainable resource management and national energy priorities. Through five positions placed across four National Forests, participants contributed 2,550 hours of service, advanced mineral impact assessments, and strengthened the Forest Service's capacity for science-based decision-making. Their work not only addressed immediate geoscience needs driven by the administrations and Chief's priorities, but also fostered career development for the next generation of professionals.

Building on the success of 2025, the GSF program will expand in 2026 to include specialized roles in mineral resource management, geohazards inventory, cave and karst mapping, hydrology, and public interpretation. Continued investment in geoscience workforce development will ensure the agency remains prepared to meet evolving mineral and energy demands. The success underscores the value of partnerships and the importance of building a skilled workforce to meet national priorities for energy development, resources sustainability, and visitor engagement.

GEOSCIENTISTS IN FORESTS

CONSERVATION LEGACY

STEWARDS INDIVIDUAL PLACEMENTS

USDA

FOREST SERVICE US DEPARTMENT OF AGRICULTURE