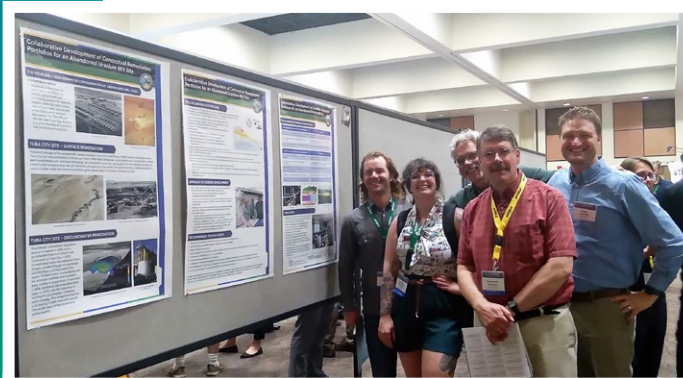




# U.S. Department of Energy Joint Annual Environmental Justice Implementation Progress Report and Second Environmental Justice Five-Year Implementation Plan

Fiscal Year 2022



## COVER PHOTOS:

**Top Left:** Viewing an LM poster on display at the Twelfth International Conference on Remediation of Chlorinated and Recalcitrant Compounds on May 22-26, 2022, in Palm Springs, California are: From left, Mike Morse (RSI-hydrogeologist), Allison Reynolds (RSI-geochemist), Pete Lemke (Geosyntec–chemical engineer), Ray Johnson (RSI-geochemist) and Pete Schillig (RSI-hydrogeologist).

**Top Right:** U.S. House Majority Whip James E. Clyburn and Mentorship for Environmental Scholars students.

**Middle Left:** LM Director Carmelo Melendez shows former Weldon Spring Site worker Robert Laird one of the exhibits inside the new Weldon Spring Site Interpretive Center near St. Charles, Missouri. LM welcomed about 70 guests to a ribbon cutting ceremony on April 14, 2022.

**Middle Right:** LM hosted a series of STEM Expo events at local high schools that focused on nuclear science, energy, radiation, soil science, ecology, and botany, as well as the opportunity to explore STEM careers.

**Bottom Left:** A multi-agency briefing starts early in the morning on the Navajo Nation, with representatives from LM, EPA, Navajo Nation EPA, and RSI EnTech contractors.

**Bottom Right:** Students line up at Fernald Preserve near Hamilton, Ohio, to compete in the NCF-Envirothon.



## FORWARD

Recognizing the urgency of the environmental crisis, U.S. President Joe Biden and administration have made it a top priority to address environmental injustices and pave the way for a sustainable future. With a steadfast commitment to environmental justice (EJ), the Biden administration aims to lead our nation toward a greener revolution that leaves no community behind. Furthermore, the Biden administration has vowed to center EJ in their decision-making processes, ensuring that marginalized communities have a seat at the table when it comes to shaping environmental policies. They seek to rectify the historical injustices faced by these communities by implementing targeted strategies that address the root causes of environmental disparities. Recognizing the urgency, the administration is working toward immediate actions to mitigate climate change impacts and protect vulnerable populations from environmental hazards. Devoted to EJ, the Biden administration aims to create a more sustainable and equitable future for all, leaving no community behind. The urgency to address environmental injustices is underscored by the devastating impacts caused by climate change and the disproportionate burden borne by marginalized communities.

In November 2021, President Biden enacted the Bipartisan Infrastructure Law to overhaul our nation’s energy framework to create an equitable clean-energy future for American people.

DOE has adopted the following priorities:

- Implementing the BIL.
- Modernizing and upgrading American energy infrastructure.
- Creating quality jobs, including well-paying union jobs.
- Delivering reliable, clean, and affordable energy to more Americans as we tackle the climate crisis.
- Pursuing a zero-carbon electricity system by 2035 and a net-zero emission economy by 2050.
- Advancing justice and equity and ensuring stronger economic and environmental benefits for disadvantaged communities.
- Increasing domestic production and protecting energy supply chains.
- Growing private sector awareness of clean energy supply technologies through demonstration and action.

“

**We’ve put environmental justice at the center of what we do, addressing the disproportionate health, environmental, and economic impacts that have been borne primarily by communities of color – places too often left behind.**

”

**President Joe Biden  
Earth Day 2022**

As envisioned when the BIL was written, within days of taking office, the Biden administration built on Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* legacy by issuing numerous executive orders that advance EJ and seek to secure a more equal and just future for all.

We appreciate the contributions made by DOE programs, participating communities, tribal partners, non-governmental organizations, academic institutions, and private-sector partners who have collaborated to make the Department’s EJ efforts a success.

The goals and activities included in this annual 2022 joint EJ report are based on clear priorities and tangible benefits that consider programmatic, legislative, and regulatory responsibilities. They emphasize community participation and empowerment, and stakeholder involvement. In addition, they encourage new approaches to occupational and environmental science research for high-risk communities and workers, embrace interagency coordination to facilitate EJ, and heighten the sensitivity of managers and staff to EJ within the Department.

Continuing the path set by the Biden administration, DOE gladly presents our *U.S. Department of Energy Joint Annual Environmental Justice Strategy Implementation Progress Report and Second Environmental Justice Five-Year Implementation Plan Progress Report, Fiscal Year 2022* that highlights the Department’s EJ accomplishments to further President Biden’s EJ agenda.

*Carmelo*

Carmelo Melendez  
Director  
Office of Legacy Management

This document serves as the *2022 Annual Department of Energy Annual Implementation Progress Report* as required by the Memorandum of Understanding on Environmental Justice signed in 2011 by 17 federal agencies, and the *DOE Second Environmental Justice Five-Year Implementation Plan*. The goals and activities being reported are based on clear priorities and tangible benefits that consider programmatic, legislative, and regulator responsibilities and response to the requirements of both DOE documents.

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## ENVIRONMENTAL JUSTICE IS

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

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## I. INTRODUCTION

On Nov. 15, 2021, President Joseph R. Biden signed the historic Bipartisan Infrastructure Law (the BIL), kickstarting a once-in-a-generation effect to overhaul our nation’s energy infrastructure and strengthen America’s competitive edge in clean energy for years to come. The BIL includes more than \$62 billion for the U.S. Department of Energy (Department or DOE) to use toward creating a more equitable clean energy future for the American people.

As envisioned when the BIL was written, within days of taking office, the Biden administration built on the EO 12898 legacy by issuing numerous executive orders that advance environmental justice and seek to secure a more equal and just future for all.

### Supporting Executive Orders

- [Executive Order 13985, \*Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.\*](#)
- [Executive Order 14008, \*Tackling the Climate Crisis at Home and Abroad.\*](#)
- [Executive Order 14052, \*Implementation of the Infrastructure Investment and Jobs Act.\*](#)
- [Executive Order 14057, \*Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability.\*](#)
- [Executive Order 14091, \*Furthering Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.\*](#)
- [Executive Order 14096, \*Revitalizing Our Nation’s Commitment to Environmental Justice for All.\*](#)

These EOs do not only affirm the federal government’s commitment to identify and address EJ concerns, but they also offer new principles, commitments, and guidance, especially in the climate change and racial equity domains.

## II. ENVIRONMENTAL JUSTICE STRATEGY AND IMPLEMENTATION PLANS

In 2017, we issued our third [DOE EJ Strategy](#), further demonstrating our department-wide commitment to EO 12898, which included EJ commitments from program and field offices.

The 2017 Strategy provides a roadmap for our goals and objectives, highlights our priorities for the next five years, and is reflected individual program plans. It also provides an overarching vision that is reflected in DOE’s goals.

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Agencies shall make achieving EJ part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.

”

EO 14008, *Tackling the Climate Crisis at Home and Abroad*

- 
- Goal 1:** Fully implement Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*.
- Goal 2:** Integrate Environmental Justice into the National Environmental Policy Act (NEPA) Process.
- Goal 3:** Minimize Climate Change Impacts on Vulnerable Populations.
- Goal 4:** Comply with Title VI of the Civil Rights Act of 1964.

### III. ENVIRONMENTAL JUSTICE STRATEGY

In line with its Strategy, the DOE EJ program prepared its [Second Five-Year Implementation Plan](#). DOE program offices identified five EJ commitments to develop and implement over the five-year period. DOE reports progress on these commitments annually. This report is being released jointly with the required implementation report as the U.S. DOE Joint Report EJ Implementation Progress Report and Second EJ Five-Year Implementation Plan for fiscal year 2022.

Key priorities for increasing community engagement and opportunities:

- Tribal training, education, community engagement, and opportunities.
- Community-driven activities.
- Capacity building.
- Public and private industry partnerships.
- Opportunities for minority populations, low-income populations, American Indians, and Alaska Natives.
- Workforce and career development.

EJ has purposely developed broad goals aimed at addressing specific responsibilities and priorities, to help guide DOE's EJ Five-Year Implementation Plan. The Department will address the complexity of EJ in a timely, deliberate manner.

In our quest to achieve EJ, DOE will work to make a visible difference as we conduct our day-to-day activities. We strive to improve the environment and human health for communities while ensuring that no group of people suffers an imbalance of adverse environmental effects.

DOE continues to deliver innovative and transformative science and technology solutions to energy, security, economic, and environmental challenges the U.S. faces in the 21st century. Using best practices from more established programs, we continue to seek new ways to implement and advance our overall goals. By continuing to plan and implement our commitments, we will encourage all DOE program offices to integrate EJ into their policies, programs, and activities.

DOE continues to highlight these efforts and serves as a model for the federal government. The relationship between EJ and DOE goals can be summed up as commitment, fairness, and collaboration through educational, motivating, and innovative actions. These priorities are critical to advancing the nation's energy and security goals, strengthening our economy, and providing a safe and healthy environment for minority populations and low-income populations, American Indian and Alaska Natives. Our goal is to achieve EJ and foster equity in programs that affect human health and the environment.



More than 25 years after EO 12898 was signed, DOE remains committed to EJ principles and continues to build upon the order’s legacy. Additional EOs signed by President Biden continue the legacy.

Following the publication of this document, the Department will initiate the preparation of a new DOE EJ Strategy building on the Plan and EO 14096.

## IV. NATIONAL COLLABORATIVE INITIATIVES

### 2022 National Environmental Justice Conference and Training Program

This year’s National Environmental Justice Conference and Training Program (NEJC) theme, “New Opportunities and Trends in Environmental Justice in 2022 and Beyond,” built upon past conferences and recognized a rapidly changing and diverse landscape. Since 2007, DOE has supported NEJC, the nation’s largest annual EJ conference, which took place March 9-11, 2022, in Washington, D.C., and was also offered virtually. The conference featured thought provoking panels and workshops, and many opportunities to hear from young people, activists, and others from across the United States who are engaged and committed to EJ principles. Presentations were provided by individuals with unique backgrounds and different experiences. The presentations highlighted the idea that conference attendees believe EJ cannot exist without informed citizens; that all Americans are entitled to live in a healthy environment; and that empowering people is the key to advancing any worthy cause that could improve everyone’s quality of life, especially those in underserved and underrepresented communities.

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This conference has done much over the past 15 years to highlight the issue of EJ, but we have more to do in our efforts to prepare our youth and future EJ leaders to take the mantle in developing capacity-building techniques, education, training, outreach, research, policies, collaborations, and projects and activities for today and in the future.

”

Melinda Downing

EJ Program Manager  
U.S. Department of Energy



*U.S. Secretary of Energy Jennifer Granholm gives her presentation to the 2022 NEJC via livestream.*

Program highlights included a video address by U.S. House Majority Whip James E. Clyburn (D-SC);

a virtual address by Secretary of Energy Jennifer Granholm; a video presentation by Deputy Secretary of Energy David Turk; and in-person keynote remarks by U.S. Fish and Wildlife Service (USFWS) Deputy Assistant Secretary Mike Martinez.

Day one of the conference was dedicated to high school and college attendees during the Youth/ Emerging Leaders’ Summit. Days two and three

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included presentations from Virtual Environmental Justice Academy students and Mentors for Environmental Scholars (MES) program undergraduate students.

More information can be found at <https://thenejc.org>.

## Comprehensive Environmental Response, Compensation, and Liability Act

Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) in response to a growing national concern about hazardous substance releases from abandoned waste sites. Under CERCLA, Congress gave the federal government broad authority to regulate hazardous substances, to respond to hazardous substance releases, and to develop long-term solutions for the nation's most serious hazardous waste problems.

Hazardous substances are stored and managed at DOE facilities throughout the United States. DOE Headquarters provides technical assistance and support to Departmental programs and sites on issues related to implementing and complying with CERCLA regulations. Headquarters also provides technical assistance on newly issued guidance or other requirements and advocates for the Department's interests regarding proposed CERCLA initiatives. Headquarters serves as the corporate resource through the following:

- Providing technical support and compliance assistance.
- Developing guidance on compliance topics and new requirements.
- Coordinating DOE responses to emerging policies.
- Reviewing documents.
- Conducting on-site assistance visits and participating in independent assessments.
- Interfacing with the U.S. Environmental Protection Agency (EPA) on compliance issues.

The CERCLA statute requires EPA to maintain a Federal Agency Hazardous Waste Compliance Docket (Docket). The Docket contains a list of federal facilities that are managing or have managed hazardous waste; or have had a hazardous substances, pollutants, or contaminants of reportable quantity (RQ) release. EPA sends Docket revisions and updates to DOE headquarters bi-annually. DOE headquarters has created guidance to help users navigate the Docket compliance tool. The guidance can be found in the Additional Resources tab at the bottom of this page.

When a hazardous substance, as defined under CERCLA, is released to the environment, and that release exceeds its RQ within a 24-hour period, the release must be reported to the National Response Center. DOE developed the RQ-Calculator to help fieldworkers determine if the regulated substance release is a reportable quantity. If a hazardous substance release exceeds its designated RQ, DOE updates the RQ-Calculator.

## Congressional Black Caucus Annual Environmental Justice Braintrust

The Congressional Black Caucus (CBC) Annual Environmental Justice Braintrust (Braintrust) identifies environmental issues and recommends strategies that will assist policy makers in developing forward-thinking, all-inclusive environmental policy that recognizes and fosters the unique relationship between environmental protection, human health, EJ, and economic development.

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U.S. House Majority Whip James E. Clyburn (D-SC) sponsored the Sept. 29, 2022, Braintrust “Advancing Equity: Fireside Chat on Environmental Justice: Advancing Health, Equity, and Opportunity,” which hosted 300 attendees.

## National Environmental Policy Act

The White House Environmental Justice Interagency Council (WHEJIAC) National Environmental Policy Act (NEPA) Committee (Committee) is a model for federal collaboration, focusing NEPA on the environmental and human health conditions in minority, low-income, and American Indian and Alaska Native communities to achieve EJ.

The NEPA committee aims to improve the effective impacts and consideration of EJ in the NEPA process by sharing federal NEPA practitioners’ best practices, lessons learned, research analysis, training, consultation, and other experiences. DOE maintained a leadership role in developing and producing various EJ and NEPA-related resource materials.

LM Director Carmelo Melendez issued a Memorandum for Heads of Departmental Elements: Environmental Justice Evaluation Tools for NEPA Review (2019), distributing valuable resources to help advance EJ principles.

The NEPA committee led a multiyear, multi-agency effort to increase the understanding and effectiveness of EJ and NEPA approaches that federal agencies can consider for incorporating EJ throughout the NEPA process. The committee conducts training and briefings on the consideration of EJ in the NEPA process with federal agencies, such as DOE, EPA, U.S. Department of Transportation (DOT), U.S. Department of Agriculture, U.S. Department of the Interior, and others. The committee also provides training on meaningful public engagement in the NEPA process for affected communities and stakeholders.

DOE follows NEPA regulations and appropriate DOE Tribal Engagements Executive Orders and other applicable guidelines to engage tribes on NEPA processes, such as early notice, informal briefings, and invitations to participate in formal hearings. More than 8,000 tribal governments and tribal citizens are registered on a server that delivers information to the public about NNSA NEPA-related activities.

DOE’s Office of Fossil Fuels and Carbon Management participated in the identification of federal actions through the NEPA process and addressed resulting potential EJ concerns.

DOE Idaho Operations Office’s (DOE-ID) Agreement-in-Principle (AIP) with the Shoshone-Bannock Tribes contains a DOE commitment to provide an annual NEPA Planning Strategy to the Tribes and identifies the expected NEPA activities for the calendar year. Draft NEPA documents are provided directly from DOE to Tribal DOE staff and the Fort Hall Business Council (FHBC) for review and comment. DOE also coordinates with the Shoshone-Bannock Tribes to evaluate historic and cultural concerns as projects develop at Idaho National Laboratory (INL).

The NEPA Committee led a multiyear, multi-agency effort to increase the understanding and effectiveness of EJ and NEPA approaches that federal agencies can consider for incorporating EJ throughout the NEPA process. The Committee conducts training and briefings on the consideration of EJ in the NEPA process and provides training on meaningful public engagement in the NEPA progress. DOE follows NEPA regulations and appropriate DOE Tribal Engagement Executive Orders and other applicable guidelines to engage tribes on NEPA processes, such as early notice, informal briefings, and invitations to participate in formal briefings.

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DOE-ID provided a list of NEPA activities to the Shoshone-Bannock Tribes early in 2022 and gave status updates throughout the year.

The Nuclear Energy Tribal Working Group (NETWG) held four meetings. Meeting locations included Green Bay, Wisconsin (June); Washington, D.C. (October and March); and one virtual meeting. The meetings allowed DOE staff and senior Office of Nuclear Energy (NE) management to meet in March and April 2022 and discuss issues of mutual-interest issues.

Southwestern Power Administration (SWPA or Southwestern) fulfilled NEPA and EJ mandates using and putting into effect Title 10 *Code of Federal Regulations* (CFR) Section 1021 “National Environmental Policy Act Implementing Procedures,” to meet requirements for rights of ways and facilities in Oklahoma, and substations construction projects in Oklahoma, Arkansas, and Missouri. Southwestern performs operations and maintenance activities according to the programmatic environmental assessment, biological evaluation, biological opinion, and single-state programmatic agreements.

In FY 2022, SWPA met with eight American Indian tribes to discuss new construction projects during NEPA reviews.

DOE-NE met with the Strategic Capabilities Office for a formal NEPA government-to-government consultation about Project Pele, a program intended to design, build, and demonstrate a mobile microreactor project.

On May 27, 2022, the Office of Economic Impact and Diversity (ED) conducted training in collaboration with the DOE Office of Environmental Management (EM) NEPA Community of Practice about tribal interactions and consultations, and NEPA and tribal interactions.

## Title VI of the Civil Rights Act of 1964

The Office for Civil Rights is responsible for monitoring and enforcing compliance with Title VI, investigating Title VI-related complaints, and providing technical assistance to DOE financial assistance recipients. The Department has declared regulations that implement Title VI.

### **OCR administers DOE internal civil rights programs under the following statutory orders:**

- Title VI, as amended; The Age Discrimination in Employment Act of 1967; Rehabilitation Act of 1973, Section 501; Equal Pay Act of 1963; and the Genetic Nondiscrimination Act of 2008.

### **OCR administers DOE external civil rights programs pursuant to the following statutory mandates:**

- Title VI and Title IX of the Education Amendments of 1972.
- Rehabilitation Act of 1973, Section 504.
- Age Discrimination Act of 1975 (Age Act).
- Complaints filed against DOE financial assistance recipients pursuant to Title IX, Section 504, and the Age Act are adjudicated.

### **Other OCR Actions and Activities**

- Received one Title VI of the Educational Amendments Act of 1972 complaint in 2022, which was also filed with DOT and EPA. EPA is processing the complaint on DOE’s behalf.

- 
- Initiated its second Title VI compliance review of the Mississippi Department of Human Services in relation to their activities funded through DOE’s Weatherization Assistance Program.
  - Completed a draft Language Access Plan for U.S. Department of Justice (DOJ) review and comment and will begin implementing the plan once finalized.
  - Started a civil rights pre-award review pilot program of DOE financial awards, which examines the recipients ability to comply with all civil rights laws including Title VI.
  - Launched a civil rights technical assistance program for internal program offices and DOE grantees, which includes Title VI compliance requirements.

## White House Environmental Justice Interagency Council

As part of President Biden’s historic commitment to EJ, the [WHEJIAC](#) was created when he signed EO 14008, *Tackling the Climate Crisis at Home and Abroad* just days after taking office. EO 14008 charges the WHEJIAC with developing “a strategy to address current and historic environmental injustice by consulting with the WHEJIAC and with local EJ leaders.” It further requires the WHEJIAC to “develop clear performance metrics to ensure accountability and publish an annual public performance scorecard on its implementation.”

### EO 14008, Assigned IAC Members

- Secretary of Defense.
- Attorney General.
- Secretary of the Interior.
- Secretary of Agriculture.
- Secretary of Commerce.
- Secretary of Labor.
- Secretary of Health and Human Services.
- Secretary of Housing and Urban Development.
- Secretary of Transportation.
- Secretary of Energy.
- Secretary of Homeland Security
- Chair of the Council of Economic Advisers.
- Administrator of the Environmental Protection Agency.
- Director of the Office of Management and Budget.
- Executive Director of the Federal Permitting Improvement Steering Council.
- Director of the Office of Science and Technology Policy.
- National Climate Advisor.
- Assistant to the President for Domestic Policy.
- Assistant to the President for Economic Policy.

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## Current Subcommittees

- Justice40 Subcommittee.
- NEPA Committee.
- Public Participation Committee.
- Rural Communities Committee.
- Strategy and Implementation Committee.
- Regional IAC.
- Native Americans and Indigenous Peoples Committee.
- Impacts from Commercial Transportation — Goods Movement — Committee.
- Title VI of the Civil Rights Act Committee.
- Natural Disasters and Environmental Justice Subcommittee.

## IAC Members' Projects

- The Justice40 Initiative.
- Climate and Economic Justice Screening Tool.
- Environmental Justice Scorecard.
- Update to Executive Order 12898.
- White House Updates.
- Agency Work and Highlights.

IAC members discuss the all-government implementation of EJ priorities, including the Justice40 Initiative, the Climate and Economic Justice Screening Tool, the EJ Scorecard, and the update to EO 12898.

President Biden, through EO 14008 created the IAC to replace the Interagency Working Group on Environmental Justice – established in 1994 and assembled by EPA to elevate the body and enable the Executive Office of the President to coordinate interagency efforts on EJ.

## V. NOTABLE AND INNOVATIVE PLACE-BASED INTERAGENCY COLLABORATIVE PROJECTS

DOE continues to work with federal, state, local, tribal, and other partners on place-based initiatives to help overburdened communities proactively address emerging environmental challenges in ways that build long-term sustainability.

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## Place-Based Interagency Projects

### American Association of Blacks in Energy Second Quarter Meeting

EJ Program Manager Dr. Melinda Downing served as a panelist for the American Association of Blacks in Energy (AABE) second quarter meeting envisioning EJ in Virginia's clean energy transition. Thirty-eight people participated in the meeting.

Clean energy transition is a top priority of the Biden administration's agenda. In President Biden's whole-of-government approach to tackle the climate crisis, he has made it clear that his administration will chart a new course — one that puts equal effort into clean energy technology, clean energy jobs, and resiliency in disadvantaged communities (DACs).

### AABE Second Quarter Meeting Topics

- The role of leaders in the energy industry and influencers in advocating for underserved or historically DACs.
- How communities will be affected by the transition to clean energy.
- The benefits of deploying renewable or clean energy technologies.
- How citizens are responding to clean energy technologies in their communities.
- Steps being taken by DOE to ensure social and environmental justice in clean energy transition.
- What is the call to action?

DOE believes in developing relationships and working alongside AABE on EJ and clean energy for the future of underserved communities of color

## Community Outreach Network

The Community Outreach Network resulted from an October 2007 U.S. House Committee on Oversight and Government Reform congressional directive requesting that five federal agencies (DOE, EPA, National Regulatory Commission [NRC], Bureau of Indian Affairs, and U.S. Department of Health and Human Services) coordinate with one another to address uranium-related issues on the Navajo Nation. The agencies, work with the Navajo Nation and Hopi Tribe to develop the 2008-2012 Five-Year Plan, which was the federal government's first coordinated effort to address uranium contamination on the Navajo Nation. The plan focused on improving awareness about the scope of the contamination problem and on prioritizing the risks. In 2014, federal agencies completed the second Five-Year Plan that built on the work of the first plan with the following major objectives:

- Clean up abandoned uranium mines, groundwater, and homes constructed with contaminated mining materials.
- Provide clean drinking water to affected communities.
- Support community outreach and information sharing.

“

The clean energy revolution must lift up these communities that have been left behind, and make sure those who suffered the most are the first to benefit.

”

Melinda Downing,  
DOE EJ Program  
Manager

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Finalizing the Ten-Year Plan (2019-2028) reaffirmed the five agencies commitment to continue working with the Navajo Nation and Hopi Tribe to address solutions related to uranium contamination issues in Native Nations. For more information about past Five-Year Plans, please visit EPA's website link, at: [Abandoned Mines Cleanup: Federal Plans](#).

The Community Outreach Network is the information sharing hub for this overall effort. The network is composed of representatives from the five participating federal agencies, the Navajo Nation Abandoned Mine Lands (AML) Reclamation/Uranium Mill Tailings Remedial Action (UMTRA) Department (AML/UMTRA), the Navajo Nation Environmental Protection Agency (NNEPA), the Navajo Nation Department of Health (NNDOH), the Hopi Tribe Department of Natural Resources, and other tribal programs and offices. AML/UMTRA, NNEPA, and NNDOH provide tribal information specific to their efforts in addressing uranium-related issues on the Navajo Nation. The network is tasked with organizing community outreach events, sharing information, coordinating conference calls, and receiving community input and feedback.

The network office is staffed by a Community Outreach Network Coordinator and Tribal Administrative Assistant, who serve as resources for the five federal agencies, tribal departments, programs, and community members. The office provides information on LM sites in Tuba City and Monument Valley, Arizona; Shiprock, New Mexico; and Mexican Hat, Utah. EPA provides information on efforts to address abandoned uranium mines. Another component to the network is providing current information on the Defense Related Uranium Mines (DRUM) program. The DOE DRUM program is a partnership between DOE, federal land management agencies, and state abandoned mine lands.

## Defense-Related Uranium Mines

The Defense-Related Uranium Mines program is a partnership between DOE, federal land management agencies, state AML programs, and tribal governments to verify and validate the condition of a unique set of abandoned uranium mines. These mines provided uranium ore to the U.S. Atomic Energy Commission (AEC) for defense-related activities.

Most mines are located on public land and are abandoned. The program is divided into three campaigns based on land management status and ownership. Initiated in 2017, DRUM Campaign 1 focused on approximately 2,500 legacy mines located on public land administered by federal and state agencies. Campaign 2 fieldwork started in FY 2022 and completed 2,158 V&Vs with plans to complete all mines by March 2024. The DOE Office of Legacy Management (LM) implements the program by conducting V&V activities, including:

- Exchanging information with other federal agencies and state governments to improve mine-specific data quality.
- Performing field inventories to document the mines condition.
- Conducting gamma radiation surveys, soil sampling, and water sampling (as applicable), as well as collecting evidence to evaluate hazards posed by each mine.
- Producing mine-specific reports that document inventory results, as well as evaluating physical hazards and potential chemical and radiological risks.

Ultimately, verification and validation activities result in preliminary risk screening to assess whether each mine poses potential risks to human health and the environment. This information is shared with the U.S. Bureau of Land Management (BLM), U.S. Forest Service, and state and tribal governments to help them make decisions about how to address mines that pose the greatest risks.



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## DRUM Activities

In June 2022, LM's DRUM project manager assessed two mine sites located on the Spokane Tribe of Indians, Wellpoint, Washington, reservation land. The commitment for conducting this assessment was made during tribal consultation in May, and confirmed these sites were already reclaimed. LM also delivered the historical mine production information, records, references, and maps as requested by the Spokane Tribe of Indians to the Tribal Business Council.

In August, the DRUM team successfully inventoried three mines on the land of the Pueblo of Laguna. The DRUM team was accompanied by the Pueblo's Acting Director of Environmental and Natural Resources (ENRD).

LM's DRUM program manager met with the Pueblo of Laguna's new Director of ENRD on Sept. 29 to review the digital inventory and sampling data collected in August. In fall 2022, LM hosted a radiological workshop for ENRD staff to foster stronger working relationships and share LM's standard radiological practices. Constructive discussions included radiological contamination control, biological effects, radiation dose limits, radiation risks, personnel radiation monitoring programs, DRUM benchmarks, survey instruments, and DRUM gamma walkover surveys.

The DRUM team and the Navajo Public Affairs team joined to conduct outreach at the Northern Navajo Nation Fair in Shiprock, New Mexico, on Sept. 29. LM hosted a booth to provide fact sheets and answer questions about the inventory activities on the Navajo Nation. The team greeted more than 700 school children along with parents, teachers, and chaperones who all received information on the upcoming mines inventory in Cove, Red Valley, Round Rock, and Sweetwater locations.

The DRUM program started inventory operations on the Navajo Nation on Oct. 18. The team met with the Navajo Abandoned Mine Lands and Reclamation Department and Navajo Sweetwater Chapter House personnel before completing seven mine inventories. Project personnel posted information sheets describing inventory activities in multiple locations and provided copies to interested residents. Teams completed mine inventory activities at 13 mines on the Navajo Nation during calendar year 2022.

Partnering with the LM Bluewater, New Mexico, Disposal Site team, DRUM team members gave Acoma Pueblo leadership a brief project activities overview.

## Federal Facility Agreement

### Hanford, Washington, Site

DOE operates the Hanford site (HAN) in South Central Washington state. EPA and the state of Washington Department of Ecology signed a comprehensive cleanup and compliance agreement on May 15, 1989. [The HAN Federal Facility Agreement \(FFA\) and Consent Order](#) — or Tri-Party Agreement (TPA) — is a compliance agreement with Comprehensive Environmental Response Compensation and Liability Act (CERCLA) remedial action provisions and with Resource Conservation and Recovery Act (RCRA) treatment, storage, and disposal unit regulations and corrective action provisions.

### Tri-Party Agreement Responsibilities

- Defines and ranks CERCLA and RCRA cleanup commitments.
- Establishes responsibilities.

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- Provides a basis for budgeting.
  - Reflects a concerted goal for achieving full regulatory compliance and remediation, with enforceable milestones.

HAN cleanup is one of the nation's largest and most complex environmental challenges. TPA agencies recognize that people nationwide are concerned and affected by HAN. Public input on cleanup activities plays a vital role in decision-making processes. Public involvement is important because it allows the agencies to consider communities' values, concerns, and ideas before making decisions. A well-informed public can help maintain support for HAN cleanup.

DOE supports the searchable, automated [Tri-Party Agreement Administrative Record \(AR\) and Public Information Repository \(PIR\)](#). This database gives easy and immediate access to information and documents included in the AR and PIR that are available to the public.

The [AR database](#) is regularly updated as new documents are submitted. Predefined searches include by author, company, added within 90 days, date range, document number, operable unit, treatment storage disposal unit, waste management area, TPA milestone, and document type.

There are five PIRs in the state of Washington: Seattle, Portland, Spokane, and two in the Tri-Cities. PIRs give the public access to information about TPA activities and provide access to documents for public review and comment. The HAN [Public Involvement Opportunities](#) webpage contains a list of current public activities open to the public and documents that are out for public review.

## **Oak Ridge Office of Environmental Management**

The Oak Ridge Office of Environmental Management (OREM) continued collaborating with EPA and the Tennessee Department of Environment and Conservation (TDEC) through the FFA. The FFA establishes priorities for cleanup and annual enforceable schedules for addressing those cleanup priorities. EJ principles applied as part of FFA priorities ensure greater public participation and support fulfilling all health and environmental statutes in areas with minority, low-income, and American Indians.

OREM continued its annual commitment to release a report highlighting and describing annual environmental cleanup progress in 2022. The report, which is released every January, provides an overview of all the Oak Ridge Reservation cleanup projects that are underway or were recently completed, and gives readers a deeper understanding of how their tax dollars are spent, and the priorities and environmental cleanup projects for the coming year.

## **Savannah River Site, South Carolina**

Savannah River Site (SRS) contaminated sites — including soil, groundwater, and surface waters — are cleaned up under an FFA. On Aug. 16, 1993, the three-party agreement between DOE, EPA and South Carolina Department of Health and Environment Control became effective. The government required DOE to establish a procedural framework and schedule for characterizing and remediating all releases of hazardous substances as defined by CERCLA, and all hazardous wastes and constituents as defined by RCRA. The core team approach used by the three parties promotes teamwork and efficient real-time decision making to ensure all parties' requirements are integrated into comprehensive cleanup decisions. EJ principles applied as part of FFA cleanup priorities ensure greater public participation and help enforce all health and environmental statutes in areas with minority, low-income, and American Indian and Alaska Natives.

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EM updates and issues its 10-year EM Strategic Vision annually. This document shares all the projects, milestones, and goals for the next 10 years across EM. OREM supplied information about its planned projects and milestones from 2022 to 2032. EM shares its information with the public and stakeholders to help them better understand the Office's path forward. EM's annual updates continually provides an updated 10-year window.

EM also issues a year-in-review document that is released at the end of each year and highlights the major achievements at each EM site. OREM also submitted content for the 2022 Year-in-Review, which is available to the public on EM's website.

OREM released its own updated 10-Year Program Plan in fall 2022. This document provides OREM's cleanup direction and intent for the coming years to inform the community about the goals, objectives, and performance measures for the Oak Ridge cleanup program from 2022-2032. This document shares much more information and details about Oak Ridge than the EM publications. OREM developed its previous program plan in 2014.

### **Joint DOE Federal and Contractor Environmental Attorneys' Training**

DOE's Office of Health, Safety and Security (EHSS) co-sponsored the virtual 2022 Joint DOE/DOE Contractor Environmental Attorneys' training for 93 site and program office representatives. The training was oriented toward the EJ-tribal relationship, benefitting federal and contractor staff, regulators, tribal nations, and stakeholders. The training also included outreach from the DOE HQ EJ Program Manager and Tribal Consultant Milton Bluehouse, Jr.

### **Indian Country Energy and Infrastructure Working Group**

The Indian Country Energy and Infrastructure Working Group (ICEIWG) collaborates with the DOE Office of Indian Energy Policy and Programs (IE) to assist with surveys, analysis, and recommendations related to program and policy initiatives that fulfill DOE's statutory authorization and requirements described in Title V, Energy Policy Act of 2005.

Established in May 2011, ICEIWG brought government and tribal leaders together to collaborate and gain insight into real-time tribal experiences representing obstacles and opportunities in energy and related infrastructure development and capacity building in Indian country. The group is hosted, managed, and supports an IE program initiative. It is also supported by the National Conference of State Legislatures (NCSL) through a cooperative agreement.

ICEIWG aims to establish baseline information to guide policy and program prioritization and long-term strategy related to energy and infrastructure development on tribal lands while supporting IE's mission. ICEIWG also provides comments and recommendations on the IE's Roadmap and addresses programmatic needs and activities, issues, and concerns at the working level through the following objectives:

- Survey and assess Indian energy business and energy infrastructure development and needs.
- Exchange information about energy development practices, needs, obstacles, and potential solutions, including alternative approaches to energy development in its various forms.
- Develop and distribute information about tribal resources and opportunities to the public and prospective technology partners.

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- Share information, transfer lessons learned, and inform and be informed on current policy, procedures, and industry partnership mechanisms.

ICEIWG encourages discussion regarding policy concerns and forwards recommendations and comments to the IE Director.

### **ICEIWG Members**

- Alaska Federation of Natives, Anchorage, Alaska.
- Central Council of Tlingit and Haida Indian Tribes of Alaska, Juneau, Alaska.
- Husila Village, Husila, Alaska.
- Metlakatla Indian Community, Metlakatla, Alaska.
- Native Village of Eklutna, Chugiak, Alaska.
- Native Village of Kongiganak, Kongiganak, Alaska.
- Qawalangin Tribe of Unalaska, Unalaska, Alaska.
- Gila River Indian Community, Sacaton, Arizona.
- Navajo Nation, Window Rock, Blue Lake Rancheria, Blue Lake, California.
- Ewiiapaayp Band of Kumeyaay Indians, Alpine, California.
- Yurok Tribe, Klamath, California.
- Seminole Tribe of Florida, Hollywood, Florida.
- Prairie Island Indian Community, Welch, Minnesota.
- Mississippi Band of Choctaw Indians, Philadelphia, Mississippi.
- The Confederated Salish and Kootenai Tribes of the Flathead Nation, Pablo, Montana.
- Seneca Nation, Salamanca, New York.
- Mandan, Hidatsa and Arikara Nation, New Town, North Dakota.
- Cherokee Nation, Tahlequah, Oklahoma.
- Choctaw Nation of Oklahoma, Durant, Oklahoma.
- Osage Nation, Pawhuska, Oklahoma.
- Confederated Tribes of Warm Springs, Warm Springs, Oregon.

### **EJ Digital Programs Development**

In late 2022, the EHSS/EPA group began working with the EJ team to create a new program to analyze, publish, and track EJ within the Idaho National Laboratory (INL) region of influence. A new baseline data analysis document will serve as the first comprehensive EJ analysis for INL. The document will greatly improve the analyses efficiency and accuracy in all NEPA levels and allow INL to track its effect on EJ across the region.

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## Nuclear Energy Tribal Working Group

The Nuclear Energy Tribal Working Group (NETWG) is a DOE-chartered working group, focused on engaging tribal governments interested in exploring topics like nuclear research and development, small modular reactors, nuclear energy production effects on cultural resources, and siting of facilities and waste. The group also engages in emergency response and planning activities.

The NETWG mission is to engage federally recognized tribal governments and their designated representatives in NE activities. The working group serves as a conduit for communication, education for all ages, and for promoting active involvement by tribal governments. NETWG is dedicated to assist developing and maintaining the government-to-government relationship between DOE and Native American Tribes, consistent with DOE's American Indian and Alaska Native Tribal Government Policy.

NETWG comprises the DOE Assistant Secretary for NE or their designated senior leadership representative(s), along with those tribal leaders or designated representatives who may be interested in or affected by activities under NE authority. Such activities include but are not limited to expanding educational opportunities for all generations; managing storage, disposal, and transportation of spent nuclear fuel and high-level radioactive waste; nuclear research and development; small modular reactors; stakeholder outreach; emergency response and planning activities; and potential economic business opportunities.

### NETWG Active Tribe Members

- Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon.
- Mashpee Wampanoag Tribe, Mashpee, Massachusetts.
- Nez Perce Tribe, Lapwai, Idaho.
- Omaha Tribe of Nebraska, Macy, Nebraska.
- Oneida Nation of Wisconsin, Oneida, Wisconsin.
- Prairie Island Indian Community, Welch, Minnesota.
- Pueblo of Jemez, Jemez Pueblo, New Mexico.
- Pueblo of Pojoaque, Pojoaque, New Mexico.
- Sac and Fox Nation of Missouri in Kansas and Nebraska, Reserve, Kansas.
- Shoshone-Bannock Tribes, Fort Hall, Idaho.
- Timbisha Shoshone Tribe, Death Valley, California-Nevada.

NETWG's unique forum allows members to share tribal perspectives and discuss mutual-interest matters. The working group fulfills its mission through regularly scheduled meetings (at least four per year unless otherwise specified). Communication between tribal representatives and NE senior leadership and technical staff will identify topics for discussion. The NETWG meeting may include a tribal executive session with provisions for tribal representatives to meet separately or include subject matter experts, as appropriate.

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## Partnerships With Tribal Communities

To assist tribal communities and address EJ concerns, LM-site representatives are actively engaging and collaborating with tribal governments and communities. DOE is working to incorporate EJ principles into its collaboration with federally recognized tribes to establish public participation, community involvement, education, and communication to engage with American Indian and Alaska Natives.

DOE is involved with cleaning up nuclear waste at nationwide sites and facilities. The waste, resulting from nuclear weapons production, has affected the State and Tribal Government Working Group (STGWG) sovereign tribal nations located near these facilities. Tribal nations have been adversely affected by waste contamination, and their participation in the Department's mission is critical.

DOE maintains cooperative agreements with specific tribes located around legacy sites, facilities, and along routes used to transport wastes and materials. DOE continues to provide funding for STGWG to support national meetings, including the National Tribal Energy Summit held every two years. Hosted by DOE IE and NCSL, the event brings tribal leaders together with senior administration officials and representative from federal agencies, state governments, private industry, utilities, and academia to exchange ideas and explore new and permanent solutions to our combined energy challenges.

Awarded amendments to the existing five-year cooperative agreements in September 2022. The amendments cover the technical objectives set forth for fiscal years 2023-2025, the last three years of each of the seven cooperative agreements that Hanford has with the three federally recognized tribes.

LM continues to support Native Nations with cooperative agreements for programs to solicit reviews and input to documents that support monitoring, maintenance, and surveillance at LM disposal cells and former processing sites on tribal lands.

Between 2010 and 2022, IE invested over \$120 million in more than 210 tribal energy projects, valued at nearly \$215 million, implemented across the contiguous 48 states and in Alaska.

Specifically in March 2022, the IE announced nearly \$9 million in funding to 13 American Indian and Alaska Native communities for 14 projects across the nation. Collectively, those selected projects are estimated to result in 3.3 megawatts of clean energy generation and over 3.6 megawatt-hours of battery storage, serving over 1,200 tribal buildings and provide a combined \$48.5 million in savings over the life of the systems to these communities.

Further, in November 2022, the IE issued two funding opportunities valued at \$35 million for clean energy technology deployment and to power unelectrified tribal buildings.

DOE and the Shoshone-Bannock Tribes renewed their AIP with EM and NE jointly funded cooperative agreements. The two Five-Year Cooperative Agreements help to develop capacity, training, and workforce to support the DOE tribal program (i.e., environmental monitoring, cultural resource work activities, and long-term stewardship [LTS] related activities at the INL site), and the Tribal Office of Emergency Management (TOEM) program that includes emergency response, emergency preparedness, and transportation activities. For cooperative agreements, DOE provided \$2.25 million annually over five years for a total of \$6.6 million over five years.

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DOE and the Shoshone-Bannock Tribes also negotiated a new AIP governing the Tribes' involvement in INL site activities and programs. The five-year agreement is supported by a new financial assistance agreement funded by the Office of Environmental Management Idaho Cleanup Project.

DOE funds cooperative agreements for tribal-identified activities, including resource monitoring. HAN funds tribes to develop tribal resource use, exposure scenarios, and a tribal resource sampling plan.

## State and Tribal Government Working Group

Five decades of nuclear weapons research and production, from the Manhattan Project through the Cold War have left behind a significant environmental legacy in the United States.

STGWG assembles representatives from states and American Indian and Alaska Natives that host or are affected by DOE sites or facilities associated with nuclear weapons production and cleanup. Since its beginning in 1989, STGWG and DOE senior leadership have met and promoted information sharing among states, tribes, and DOE offices to foster relationships and improve communications. These ongoing interactions have resulted in a better understanding of cleanup priorities.

Cleanup is ongoing with a commitment to protect human health, cultural resources, and the environment for future generations. For more than 30 years, NCSL has served as a nonpartisan, intergovernmental convener for the STGWG and provides a policy experts team to support STGWG through a cooperative agreement with DOE.

EM continued funding the cooperative agreement with NCSL to coordinate and facilitate ongoing STGWG activities, including webinars about EM activities and in-person spring and fall meetings where LTS and natural resources are discussed.

In recent years, STGWG has focused on three priority issue areas: Long-term Stewardship, Natural Resource Damage Assessment and Restoration (NRD), and tribal concerns. STGWG's unique membership makes these areas particularly interesting and relevant to states and tribes. These priorities also bring members together to share information and hold focused dialogues with DOE.

The working group examines issues related to nuclear weapons-complex cleanup, including the EM cleanup mission and federal activities. The environmental cleanup efforts address a legacy of hazardous materials and radioactive wastes (e.g., plutonium, uranium, spent nuclear fuel), contaminated facilities, and contaminated soil and groundwater.

EM is responsible for this cleanup work, which started with 107 sites. Although all original sites have been cleaned up, the remaining sites present the most challenging work to date. While this history is important to our nation, the ongoing cleanup and environmental legacy directly affect the states and American Indian and Alaska Natives associated with these DOE sites.

Membership in STGWG has evolved since the group's formation and as cleanup has progressed. Currently, 13 states and 11 tribes make up the working group.

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## Current STGWG Members

- Cochiti Pueblo.
- Colorado.
- Confederated Tribes of the Umatilla Indian Reservation.
- Consolidated Groups of Tribes and Organizations.
- Idaho.
- Jemez Pueblo.
- Kentucky.
- Missouri.
- Nez Perce Tribe.
- Ohio.
- Oregon.
- San Ildefonso Pueblo.
- Santa Clara Pueblo.
- Santa Ynez Band of Chumash Indians.
- Seneca Nation of Indians.
- Shoshone-Bannock Tribes.
- South Carolina.
- Tennessee.
- Texas.
- Wanapum Tribe.
- Washington.
- Yakama Nation.

## Tribal Radioactive Materials Transportation Committee

Composed of representatives from 20 American Indian and Alaska Native communities, the [Tribal Radioactive Materials Transportation Committee](#) (TRMTC) offers a unique perspective regarding issues surrounding radioactive materials and spent nuclear fuel transportation and storage, and engages tribal governments interested in or impacted by these activities.

### Select TRMTC Focus Areas

- Transportation planning, routing, and storage of radioactive materials and spent nuclear fuel.
- Emergency management response and preparedness training.



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- Cultural and natural resources.
  - Public health, safety, and community education.

DOE's cooperative agreement funding for TRMTC also covers committee members' travel to their own mid-year and annual meetings — June 6-9, 2022, National Transportation Stakeholders Forum (NTSF) annual meeting; the August 2022 in-person Transportation Core Group meeting; the September 2022 Naval Nuclear Propulsion Program Exercise in Missouri; the American Nuclear Society Annual Meeting and Waste Management; and travel for DOE site evaluations.

The annual meeting focused on DOE's planning and execution efforts for safely transporting radioactive materials. As in previous years, the 2022 meeting serves as a collaborative gathering point for representatives from federal agencies, state, local, and tribal governments, private industry, and other entities associated with these important issues. During TRMTC meetings, guest speakers provide presentations and updates to participants. They also have the opportunity to gather in small groups for greater interaction and in-depth discussions during breakout sessions and members-only ad hoc working groups. In addition, attendees may convene with a state regional group and/or the TRMTC for their individual spring meetings.

In 2022, TRMTC representatives continued to participate in several web-based meetings held by DOE National Transportation Stakeholder Forum (NTSF) Spent Nuclear Fuel Rail/ Routing ad hoc working group (Rail/ Routing AHWG). The Rail/ Routing AHWG is composed of representatives from DOE, tribes, states, and the DOT Federal Railroad Administration (FRA). Rail/ Routing AHWG was formed in 2015 to address questions and concerns surrounding an anticipated rail-based transport system for future large-scale DOE shipments of commercial spent nuclear fuel. Over the years, the AHWG had addressed questions about general railroad operations, safety records, regulations, inspections, and route identification processes. AHWG continues to meet about developing a draft DOE Railcar Safety Inspection Protocol to provide a way for DOE to share otherwise confidential railcar safety inspection reports with tribes and states along a DOE spent nuclear fuel shipment path. The Rail/ Routing AHWG is co-chaired by a TRMTC and FRA representative. The final protocol issue date had not been determined at the time this report was released.

Tribal members also participated in the Section 180(c) ad hoc working group. This working group was created to address issues and activities necessary to successfully implement the policy, including, but not limited to, funds allocation, allowable activities, grant-guidance documents, and technical assistance plans.

In 2022, NE-Office of Integrated Waste Management (NE-82) continued to fund TRMTC and continued to support various NTSF meetings, informational webinars, and ad hoc working groups composed of tribal, state, and federal government representatives. For the first time in three years, NE-82 planned and led an in-person Transportation Core Group meeting in August 2022 and completed three nuclear power plant infrastructure visits, which included tribal and state government representatives. Also, NE-82 staff provide occasional presentations to NE's NETWG.

## Uranium Mill Tailings Remedial Action

The Moab Uranium Mill Tailings Remedial Action (UMTRA) project scope is to relocate mill tailings and other contaminated materials from a former uranium ore-processing facility (mill site) and from off-site properties — known as vicinity properties — in Moab, Utah, to an engineered disposal cell constructed near Crescent Junction, Utah. The scope also includes actively remediating groundwater at the mill site. The EM Office in Grand Junction, Colorado, manages the Moab Project.

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## Waste Isolation Pilot Plant

The DOE Carlsbad Field Office in New Mexico funds several tribes and Pueblos along Waste Isolation Pilot Plant (WIPP) transportation corridors. The funds are for first responder training and support. The following tribes and pueblos are involved in transportation corridors.

### Tribes and Pueblos Along WIPP Transportation Corridors

- Acoma Pueblo, Acoma, New Mexico.
- Confederated Tribe of the Umatilla Indian Reservation, Portland, Oregon.
- Laguna Pueblo, Laguna, New Mexico.
- Nambe Pueblo, Nambe, New Mexico.
- Navajo Nation, Window Rock, Arizona.
- Pojoaque Pueblo, Santa Fe, New Mexico.
- San Ildefonso Pueblo, Santa Fe, New Mexico.
- Shoshone-Bannock Tribes, Fort Hall, Idaho.

### WIPP staff gave the following presentations to the community and other stakeholders in 2022:

- WIPP Community Forum Presentation – March 17, 2022.
- WIPP Community Forum Video Recording – March 17, 2022.
- WIPP Community Forum Presentation, July 7, 2022.
- WIPP Community Forum Q&A – July 7, 2022.
- WIPP Community Forum Video Recording – Oct. 24, 2022.

WIPP was constructed for disposal of defense-generated transuranic waste (TRU) from DOE sites around the country. TRU waste consists of clothing, tools, rags, residues, debris, soil, and other items contaminated with small amounts of plutonium and other human-made radioactive elements. The waste is permanently disposed in rooms mined in an underground salt bed layer that is more than 2,000 feet from ground surface.

The WIPP information center can be reached by calling 800-226-9477. WIPP also has a Speakers' Bureau that can be contacted at [infoctr@wipp.ws](mailto:infoctr@wipp.ws). Please type "Speakers Bureau" in your email subject line.

## West Valley Demonstration Project

The West Valley Demonstration Project (WVDP) is a unique operation within DOE. It came into being through the West Valley Demonstration Project Act of 1980. The act requires the Department be responsible for solidifying high-level waste, disposing of waste created by the solidification, and decommissioning the facilities used in the process. The land and facilities are owned by DOE. The premises are New York State Energy Research and Development Authority property and represent only 200 acres of the larger Western New York Service Center, which is approximately 3,300 acres. DOE has completed its responsibilities under the act.

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The Seneca Nation of Indians has interest in and concerns about WVDP. At HAN, DOE environmental cleanup activities have the potential to impact natural and cultural resources and to interfere with American Indian and Alaska Native religious practices. Though a cooperative agreement, tribal staff are frequently engaged with DOE and its contractors. The tribes review and comment on plans and documents, participate in meeting at DOE's request, monitor cultural resource sites, participate in site surveys, and identify issues that will require additional consultation with elected officials on a government-to-government level.

The Seneca have first-responder status and are concerned about hazardous materials being transferred to and from WIPP through Seneca Nation. The Seneca coordinate with West Valley stakeholders to ensure compliance with established transportation notification protocols.

## **VI. COMMUNITY ENGAGEMENT ACTIVITIES AND RESULTS IMPACTS**

EJ is a concept that recognizes the environmental degradation and disproportionate impact on marginalized communities. Community capacity building is a process that empowers individuals and groups to develop the skills, knowledge, and resources necessary to address local challenges. Together, these two concepts can help promote community sustainability by ensuring that all community members have a voice in decisions that affect their environment and quality of life.

EJ recognizes that certain communities, particularly those that are low-income or minority, bear an unequal environmental pollution and degradation burden. This can lead to a range of health problems, economic challenges, and social inequalities. Understanding EJ requires an awareness about the historical and systemic factors that contribute to these disparities, as well as an understanding of the legal and policy frameworks that can be used to address them.

Community capacity building is a process that involves empowering individuals and groups to act on local issues. This can include developing skills, knowledge, and resources, as well as fostering relationships and networks that can support collective action. Community capacity building is essential for promoting community sustainability, as it enables communities to identify and address their own needs and challenges.

EJ can play a critical role in community capacity building by providing a framework for understanding and addressing environmental disparities. By recognizing the ways in which environmental degradation affects different communities, individuals and groups can work together to develop strategies for promoting sustainability and addressing local challenges. This can involve building partnerships between community members, government agencies, and other stakeholders, as well as advocating for policies and programs that promote EJ.

DOE is dedicated to communicating accurate and timely information to communities to protect human health and the environment. DOE is also committed to transparency, integrity, and empathy in all its work.

The Department honors cultural heritage and cultivates and nurtures relationships through communication, education, and outreach. Communication efforts bridge the gap between DOE and the public. DOE hosts the following community engagement activities:

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## Aha Nature Moments: Fernald Preserve’s Answer to Educational Virtual Programming During the COVID-19 Shutdown

The virtual series is produced by the DOE Office of Legacy Management Fernald Preserve site in Ohio, and LM’s Education, Communications, History, and Outreach (ECHO) department. The staff, accustomed to working with a physical audience, was looking for a safe and effective alternative to present their programs virtually, giving LM a way to stay connected to the community during the COVID-19 pandemic. The series started with a single video called “Secret Lives of Wild Creatures at LM’s Fernald Preserve, Ohio, Site.” The five-minute video features live shots of birds, bobcats, beavers, and other preserve residents going about their daily and nightly routines. It’s the top-streaming video on LM’s social media channels, and its numbers are increasing. Since June 2020, more than 11,500 viewers have watched “Secret Lives...” on Facebook. The first video’s success moved the team to create an entire virtual interpretive video series, focusing on the Fernald site natural history and ecology. The videos run between one and four minutes each, with topics ranging from animal track identification on Fernald’s 7 miles of hiking trails, to a mini-series on the busy American beaver that build dams throughout the property. Some of the most popular episodes include “Aha Nature Moments – Cicada,” logging more than 5,000 views in the past 10 months, and “Aha Nature Moments – Osage Orange: Hedge Apple,” with more than 2,500 views since its debut four months ago. The series continues to dominate LM’s social media feed, receiving more traffic and comments than any other postings.



*Karen Cody, Fernald Preserve interpretive specialist.*

## Allen University Environmental Justice Institute

Allen University Environmental Justice Institute (AUEJI), developed in October 2015 in partnership with DOE’s Environmental Justice Program to implement community capacity building skills, and working with EJ communities to promote youth development, and mentor students toward STEM disciplines and build a sustainable pipeline for training, education, and employment. These objectives are accomplished through a three-phase intervention: engagement, education, and empowerment.

### AUEJI Objectives

- Work with environmentally stressed communities with a major focus on EJ and capacity building skills.
- Raise awareness among community members about the environment and health issues affecting their communities.
- Provide communities with the tools to identify and address their EJ issues and concerns.
- Develop leadership within the community to increase the likelihood for sustaining community interventions.
- Build a sustainable pipeline to increase students’ interest in STEM education and youth development.

AUEJI is composed of nine different modules taught over nine weekend sessions on the Allan University campus in Columbia, South Carolina. AUEJI is a community sustainable resource center for rural and economically challenged minorities and low-income populations around the SRS in Aiken and other South Carolina and Georgia communities.

## Community Leaders Institute

The DOE, Medical University of South Carolina (MUSC), Allen University, and Alabama State University Sponsor Community Leaders Institutes (CLIs) for community leaders.

Successful community development programs depend on well-informed communities. Action occurs when those with authority assume an informed and active leadership role. The CLI's purpose is to help leaders know how to access and obtain the information necessary for making good decisions and communicating that information to the citizenry.

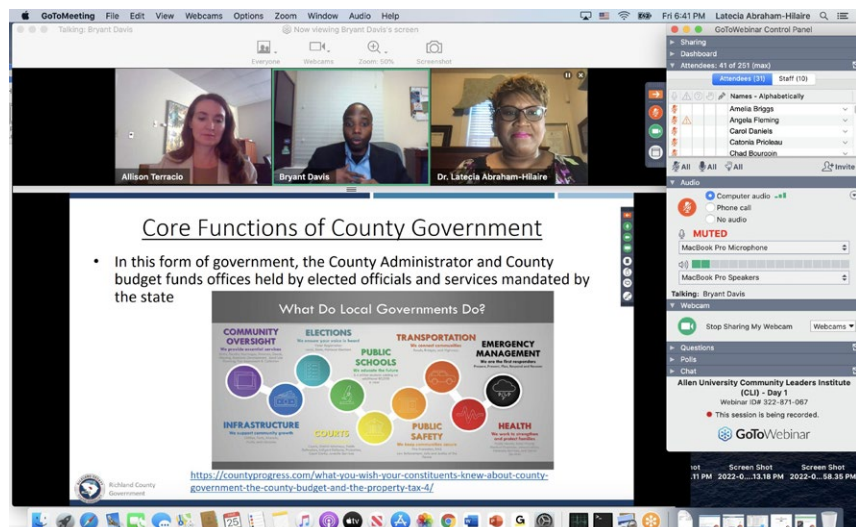
The institutes focus on the unique relationship between environmental protection, human health, EJ, and economic development. Eight CLIs supported 225 participants.

### CLI's 2022 Sessions

- Federal, state, and local government roles.
- Youth issues and challenges.
- Economic development, housing, transportation, and community development.
- Health disparities and health issues.

CLI is the first step toward enabling community leaders to lead the quest for their communities to work along with and through the agencies to affect their communities' well-being. It is a powerful vehicle for bringing about environmental changes that will improve the communities and their members' quality of life. Their action can spark changes to policies, programs, and practices.

Representatives present were from EPA, DOT, U.S. Department of Housing and Rural Development, members of Congress, members of state and local government, Children's Health Environmental Justice Coordinator; and South Carolina Department of Health and Environmental Control.



*Bryant Davis discusses the role of local governments at the Allen University CLI on March 25-26, 2022.*

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## 2022 Community Leaders Institutes

- COVID-19 CLI Allen University in Chappelle, Columbia, South Carolina, Aug. 27.
- Montgomery Alabama, July 15-16 (virtual).
- Moncks Corner, April 29-30 (virtual).
- Allen University, March 25-26.

## Cultural Preservation

### Shoshone-Bannock Tribes Environmental Justice Activities

- The Tribes FHBC participated in a cultural site tour that included Aviators Cave and Ryegrass Flats on the INL site. The Tribes Heritage Tribal Office also held an Earth Day celebration on the INL site. More than 60 tribal members and students toured Middle Butte cave and participated in traditional drum and dance performances during the event.
- DOE and the Tribes negotiated a new AIP governing the Tribes' involvement INL site activities and programs. The five-year agreement is supported by a new financial assistance agreement funded by the EM-ID cleanup project.
- The Tribes Heritage Tribal Office participated in cultural sites field surveys with the INL Cultural Resource Management Office. Tribal staff helped survey more than 1,600 acres and recorded 64 cultural sites.
- DOE-ID led seven Cultural Resource Working Group meetings with Battelle Energy Alliance and the Tribes and discussed proposed INL site undertakings and coordinated the Tribes' involvement in the INL site Cultural Resource Program.
- Heritage Tribal Office personnel toured the proposed Carbon Free Power Project location on the INL site with DOE-ID and Nuclear Regulatory Commission personnel.
- DOE-ID provided a draft Memorandum-in-Agreement (MIA) between DOE-ID and the Idaho Museum of Natural History governing curation for INL site archaeological and paleontological artifacts to the Shoshone-Bannock Tribes for review and comment to ensure Tribal concerns on management and use of American Indian and Alaska Native artifacts are properly addressed.
- The Tribes, Butte County, and Bingham County participated as consulting parties in developing DOE's Programmatic Agreement for National Historic Preservation Act compliance. DOE-ID presented the Programmatic Agreement to the FHBC and the Idaho Cleanup Project.

## Additional DOE Outreach Activities

DOE provided numerous outreach activities to the stakeholders.

- In FY 2022, the National Nuclear Security Administration (NNSA) continued to host quarterly Accord Technical Exchange Meetings, sharing information about upcoming NNSA, Los Alamos National Laboratory (LANL), and EM projects. In compliance with DOE 144.1, NNSA engaged tribes on several projects, including the Los Alamos Plutonium Pit Production Project, the Flanged Tritium Waste Containers project, and the Electrical Power Capacity Update project.

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- DOE-ID provides numerous ad hoc briefings and consultation as projects arise that could affect the Fort Hall Reservation or its surrounding communities. Regarding advanced reactor research, development, and demonstration projects, INL, the DOE-ID Manager, and staff committed to provide technical and environmental briefings to Tribal staff and the FHBC. The DOE-ID manager provided an SMR technology overview briefing to the FHBC; the U.S. Department of Defense provided briefings on the Pele reactor; and DOE has provided briefings on the MARVEL reactors.
  - In FY 2022, LANL's economic impact on New Mexico was significant. Specifically, projects with New Mexico small businesses included 242 projects serving 291 businesses. New finance at \$34.1 million attracted 292 jobs created or retained with salaries totaling \$17.6 million. LANL spent \$915,988,873 on procurement in New Mexico; with New Mexico small businesses earning \$613,504,167. LANL continues to reach out to Tribal governors and staff on educational, environmental, leadership, and employment activities.
  - To support EO 13898, and other contract provisions implementation, LANL (Triad, LLC) submits an annual diversity report. The 49-page 2022 LANL Plan Report includes extensive details on how EJ is practiced in chapters, broken down by Contractor's Workforce, Educational Outreach, Community Involvement and Outreach, Subcontracting, Economic Development (including technology transfer), and Profiling Prevention.
  - The INL EJ program has taken on an internally led community approach to institutionalizing EJ under Justice40 directives. This includes building relationships by using the Climate and Economic Justice Screening Tool (CEJST) as a guide for connecting with our current and past communities for research and development. The EJ program has participated in multiple events, sharing CEJST and its applicability for research and development that directly benefits disadvantaged, rural, and tribal communities. INL held an internal awareness-raising EJ workshop in June 2022, where staff members from multiple INL directorates agreed that tribal engagement and integration is critical for advancing the INL vision, mission, and values.
  - DOE HAN holds monthly Cultural Resources Working Group (CRWG) meetings and bi-monthly Tribal Affairs meetings with the Hanford Tribes. At CRWG meetings, DOE discusses proposed HAN projects and determines avoidance, conservation measures, and/or mitigation associated with the protections to traditional cultural and other significant properties to the tribes. DOE tracks how well commitments (which are typically memorialized in Cultural Resource Reviews and reports, MIA, or CRM Plan) are met and develops protection measures for planned projects. When tribes raise concerns about cleanup, DOE meets with the tribe(s) to discuss the concerns and looks for potential ways to modify cleanup activities to address the concerns. At the Tribal Affairs meeting, DOE HAN discusses tribal cooperative agreements and other (non-cultural resources) issues of interest to the tribes, such as cleanup and restoration activities and HAN long-term stewardship. Through tribal consultation, HAN developed a site implementation plan for DOE Order 144.1, DOE American Indian Tribal Government Interactions and Policy.
  - HAN's public involvement commitments are set forth in the Public Involvement Plan (formerly the Community Relations Plan).
  - 2022 Hanford Public Involvement Activities:
    - Held 15 public comments periods.
    - Hosted 13 public meetings.

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- Issued a Public Involvement Calendar.
  - Maintained a HAN email list.
  - The EM Tribal Program Manager visited all four Accord Pueblos, along with the EM LANL site manager and Tribal liaison, to discuss ways to continue to improve early and meaningful involvement.
  - NE staff conducted educator professional development for tribal entities and stakeholders interested in educator professional development for nuclear energy literacy.
  - DOE staff participated in the quarterly DOE CRM webinars.
  - NE staff met with Caddo Nation of Oklahoma Tribal leaders. The leaders were interested in STEM opportunities at DOE for Tribal youth.
  - NE staff participated in the “Titration: Radioactive Waste, Princeton, and the Navajo Nation: A Conversation with the Department of Energy” Program.
  - NE environmental justice senior advisor conducted an, “Environmental Justice and Nuclear Energy” lecture at American University in Washington, D.C.
  - DOE conducted several public processes to increase communities’ capacity to ensure they were involved in DOE actions early and in a meaningful way.
  - A Request for Information that closed in March 2022, seeking public feedback on the consent-based siting process.
  - NE-82 issued a Funding Opportunity Announcement (FOA) Sept. 20 to facilitate public involvement in the consent-based siting process.
  - DOE began developing tools as resources to communities for engaging in consent-based siting.
  - NE staff provided tribes with hard copies of DE-FOA-0002575 “Consent-Based Siting for Interim Storage Program – Community Engagement Opportunities” to all federally recognized tribes in the contiguous 48 United States. DOE extended the FOA deadline and NE sent hard copies of the deadline extension to the tribes.
  - Maintenance continued on the [EHSS EJ webpage](#), which contains brief descriptions of EO 12898, and CEQ guidance on EJ. The webpage also contains links to an EJ information brief prepared by EHSS’s predecessor organization.
  - Maintenance continued on the [DOE EJ webpage](#) under LM, which contains the DOE Environmental Justice Strategy and its Second Five-Year Implementation Plan.
  - EHSS representatives delivered presentations about EJ during Sustainability Assistance Network (SAN) and CRM webinars. EHSS encouraged SAN and CRM members to participate in the 2022 Annual National EJ Conference and Training Program and tribal trainings. SAN and CRM participants are drawn from program offices and sites throughout DOE and NNSA.
  - DOE Headquarters distributed informational EJ materials during the Department’s Earth Day observance.
  - DOE HAN funds cooperative agreements for tribal-identified activities, including resource monitoring. Funds are also provided to tribes to develop tribal resource use and exposure scenarios and a tribal resource sampling plan.



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- EM initiated stakeholder and Pueblo engagement for Justice40 and conducted ongoing listening sessions with the four Accord Pueblos, Santa Fe Indian School, Los Alamos County leadership, and state representatives.
  - EM gave presentations and updates on Justice40 efforts for the Northern New Mexico Citizens' Advisory Board, EM Site Specific Advisory Board (SSAB) chairs, and the public at Los Alamos County Council meetings and EM-LA cleanup forums.
  - Personalized tours conducted by EM focused on legacy cleanup efforts and progress for Pueblo Environment Department staff, Santa Fe Indian School students, Natural Resource Damage Assessment (NRDA) Trustee Council members, local officials, state representatives and staffers, state regulators, and National Association of Attorneys General members and staff.
  - Justice40 listening sessions resulted in Los Alamos Pueblos' Project cooperative agreements with the four Accord Pueblos were being expanded to include additional sampling and monitoring, including groundwater, surface water, storm run-off, irrigation canals, and wells.
    - Expanded cooperative agreements included support for additional pueblo staff for NRDA consultation.
    - EM-LA provided significant technical support to the Accord Pueblos for expanded agreement applications.
  - DOE Oak Ridge Office of Environmental Management (OREM) conducted the robust communication efforts listed in its EMDF Community Outreach Plan. OREM continues to provide periodic updates to local officials, media, and stakeholders about the project. The plan called for a new round of stakeholder outreach, additional educational materials for the public, an additional public comment period, and an additional public meeting.
  - In May, OREM opened an additional public comment period and hosted a public meeting about the updated draft Record of Decision for EMDF.
    - EPA and TDEC approved the document September 2022.
    - OREM is continuing to conduct outreach and provide updates about the project as new details are available.
    - OREM hosted a public session in December to share information about the next project steps, including information about early site preparation and the groundwater demonstration study.

Public participation actions for infrastructure projects, power sales program, and integrated system rate schedules.

- Wind Powering America (WPA) continued the public power sales program and the integrated system rate schedules within the Federal Register and Public Notice/Comment. WPA published six [Categorical Exclusion Determinations for construction](#) for public comment.
- DOE Sustainability Dashboard logged sustainability reviews and tracking for SWPA facilities and infrastructure, and sustainability information.
- Southwestern conducted consultations with eight American Indians Tribes for NEPA to review, rebuild, and consider new construction projects.
- Southwestern held five government-to-government Programmatic Agreement meetings with six tribes.

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- Wyandotte Technologies archaeologist gave Tribal Sensitivity Training to Southwestern’s Springfield, Gore, and Jonesboro maintenance crews.
  - Wyandotte and Cherokee Nation Tribal businesses are contracted on a five-year term to Southwestern for support staffing.

## Environmental Management Staff Lead Disposal Site Tour for Elected Officials

In-person formats allow real-time demonstrations for projects taking place in Shiprock, New Mexico. With COVID-19 restrictions beginning to lift in 2022, LM staff invited elected officials on a Shiprock disposal-site tour. Until this July event, the last in-person site tour with Shiprock officials was September 2019, just before the COVID-19 pandemic caused lockdowns across the country and in the Navajo Nation. Before the pandemic, LM provided extensive outreach to the Shiprock community regarding projects that took place at the disposal site.

Key to LM’s outreach is collaboration and information sharing with Shiprock Chapter House leadership, which is the community’s governing body. Even during the pandemic, LM worked diligently to provide written letters, and official written and verbal updates to leadership during its regularly scheduled monthly meetings. Among topics discussed during the tour was a brief history of the site, along with details of current and upcoming projects. The in-person format allowed for a more personal exchange of ideas rather than a formal meeting in which a report is provided. The in-person connection also allowed LM and contracting staff to show different areas at the site where projects are scheduled.

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We appreciate the commitment from the Shiprock Chapter House leadership to maintain a collaborative spirit with the Office of Legacy Management,” said Site Manager Mark Kautsky. “To be able to meet with them in person allows us to deepen the relationship and understanding of their work as it relates to the Shiprock disposal site.

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## FUSRAP Historical Display Unveiled in Washington, D.C.

The DOE Office of Legacy Management partnered with United States Army Corps of Engineers (USACE) to unveil a Formerly Utilized Sites Remedial Action Program historical display on Sept. 7, 2022.

The “FUSRAP: A Legacy of Service” display is a free-standing, interpretive exhibit that tells about FUSRAP’s history and significance. LM and USACE’s FUSRAP teams worked together to design and develop the historical display. The exhibit will be used during conferences, meetings, events, and by request in FUSRAP communities. The informative piece includes an interactive virtual display in which the public can click through images and text.

Marking the 25th anniversary of LM’s and USACE’s partnership, the in-person event included speakers from LM, including Director Carmelo Melendez, Deputy Director Peter O’Konski, FUSRAP Site Manager Darina Castillo, and speakers from USACE, including Environmental Division Chief Lara E. Beasley.



*LM and USACE staff celebrate the unveiling of a display on the history of FUSRAP. The event at the Forrestal Building in Washington, D.C., marked the 25th anniversary of LM's and USACE's partnership.*

A predecessor agency to DOE, the U.S. Atomic Energy Commission (AEC) established FUSRAP in 1974 to identify, investigate, and clean up or control sites across the United States that were contaminated during World War II and the Cold War. USACE joined the program 25 years ago, when Congress transferred FUSRAP cleanup administration and execution from DOE to USACE in October 1997. In 2003, DOE assigned FUSRAP to its newly established LM office to fulfill the Department's post-closure responsibilities and ensure human health and the environment remain protected. Today, under FUSRAP, USACE remediates sites before transferring them to LM for LTS. "The FUSRAP historic display shows the timeline and evolution [of FUSRAP], beginning with 'The Race for the Bomb,' the U.S. government's compelling call to action with the creation of the Manhattan Engineer District, most commonly referred to as the Manhattan Project," Castillo said.

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The many complete FUSRAP sites now utilized by their surrounding communities serve as powerful testaments to USACE's and LM's commitment to restoring and benefiting communities who served their country during the Manhattan Engineer District and Atomic Energy Commission eras. Our hope is that the FUSRAP [historical] display exhibit communicates FUSRAP history and significance in these communities across the nation." LM's FUSRAP sites long-term stewardship includes managing site-records and responding to stakeholder inquiries, eventually leading to many sites being released for unrestricted use and ownership transferred to private owners or public entities for beneficial reuse.

Darina Castillo,  
FUSRAP Site Manager

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## Technical Assistance Workshop



*Debbie Blacknall and Gwen Mitchell-Ulmer lead hand-on computer session during TAW.*

The Technical Assistance Workshop (TAW) emphasizes essential how-to skills needed for preparing and managing a good grant application. The TAW is a classroom session focused on teaching grant writing terms and techniques, writing a proposal and budget, and finding available grant-funding agencies. On June 4, MUSC hosted a TAW at Allen University, Columbia, South Carolina.

## Legacy Management Interpretive Centers Reopen

Two years ago, LM closed the doors to all three LM interpretive centers due to the COVID-19 pandemic. LM staff quickly adjusted to the closures, offering various virtual programming and events to the public, until federal

guidelines for workers allowed opening the centers' indoor spaces again. On April 15, 2022, LM reopened its three interpretive centers. The Atomic Legacy Cabin in Grand Junction, Colorado; the Fernald Preserve Visitors Center near Hamilton, Ohio; and the new Weldon Spring Site Interpretive Center, in St. Charles, Missouri, are once again welcoming visitors indoors. Each of the three centers are open during normal business hours, and site staff continue to produce and host virtual programming for audiences. "The site managers and site caretakers at Office of Legacy Management sites where there are interpretive centers are proud to work with the public inside once again," said LM Director Carmelo Melendez. "We have been careful and thoughtful in our approach to reopening these facilities, always making safety the priority. We look forward to welcoming back our friends and neighbors to experience the programs and services offered inside."

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We have been careful and thoughtful in our approach to reopening these facilities, always making safety the priority. We look forward to welcoming back our friends and neighbors to experience the programs and services offered inside.

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LM Director Carmelo Melendez



*Atomic Legacy Cabin*



*Fernald Preserve Visitors Center*



*Weldon Spring Interpretive Center*

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## Tour of Abandoned Uranium Mines on the Navajo Nation

LM gave several agencies tours of AUMs on the Navajo Nation. Agency representatives saw how AUMs have been successfully reclaimed and safeguarded. For two days in mid-May, Navajo AML/UMTRA Department representatives and LM DRUM program staff led site tours near Cortez in southwestern Colorado; mines in the Tse Tah; and Red Mesa regions in northeastern Arizona.

## VII. TARGETED RESOURCES TO OVERBURDENED, UNDERSERVED, AND ECONOMICALLY DISTRESSED COMMUNITIES

Overburdened communities are those that experience environmental hazards and pollution more than other communities. These communities are often located near industrial facilities, waste disposal sites, and transportation corridors. These communities are also more likely to have limited access to green spaces, clean water, and healthy food options. They are typically low-income, minority, and immigrant populations who lack political power and influence. As a result, they are more vulnerable to the negative health impacts from environmental hazards and pollution.

Underserved communities are those that lack access to basic services and resources, including healthcare, education, and employment opportunities. These communities are often in rural areas, where they face unique challenges related to EJ. Targeted resources for underserved communities include programs that promote sustainable agriculture, renewable energy, and eco-tourism. These programs can help create jobs, improve access to healthy food, and reduce the environmental impact from industrial activities.

Economic distress makes achieving EJ difficult. Communities that are economically distressed often lack the resources to advocate for their rights and to participate in decision-making processes related to environmental policy. Targeted resources for economically distressed communities include funding for community-based organizations that work to promote EJ. These organizations can provide education and outreach to community members, as well as legal assistance to those who are affected by environmental hazards and pollution.

EJ is a critical issue that affects communities across the country. Overburdened, underserved, and economically distressed communities are particularly vulnerable to the negative impacts of environmental hazards and pollution. Targeted resources, such as sustainable agriculture programs, community-based organizations, and funding for EJ initiatives, can help address these issues and promote a more equitable and just society. It is essential to continue to advocate for EJ and to work toward creating a healthier and more sustainable future for all.

### Bonneville Power Administration

Through the Bonneville Power Administration (BPA) environment, fish, and wildlife mitigation program, BPA is committed to restoring and protecting native fish and wildlife species and optimizing research and data collection methods relating to the Columbia Basin ecosystem, which is home to many minority and low-income populations, including American Indian natives.

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BPA's fish and wildlife program includes extensive funding for habitat protection and restoration to support federally protected salmon and steelhead. Some of this work is implemented by federally recognized American Indian Tribes through 10-year funding agreements known as the Columbia Basin Fish Accords.

## Emergency Response Services Assistance

In FY 2022, LANL activated the Emergency Operations Center in response to the Cerro Pelado fire. A contributing factor to the successful response is the extensive preparation and coordination with interagency partners and local communities, which occurred in previous years. By establishing and nurturing these relationships, emergency communications with neighboring communities were implemented seamlessly. In addition, for the fourth consecutive season, NNSA and LANL offered 350 cords of firewood (harvested from dead or downed timber and thinning projects to mitigate wildfire risks on site) to the four Accord Pueblos for use during winter months.

## Oak Ridge Environmental Management Public Participation

OREM fulfilled its annual commitment to release a report highlighting and describing annual environmental cleanup progress in 2022. This document, which is released every January, gives overviews about all cleanup projects that are underway or recently completed across the Oak Ridge Reservation each year. The document gives readers a deeper understanding about how their tax dollars are spent, and the priorities and environmental cleanup projects for the coming year.

OREM conducted the robust communication efforts listed in its Environmental Management Defense Facility (EMDF) Community Outreach Plan. OREM continued to give periodic updates to local officials, media, and stakeholders about the project. The plan called for renewing stakeholder outreach, additional educational materials for the public, an additional public comment period, and an additional public meeting.

In May, OREM opened an additional public comment period and hosted a public meeting about the updated draft Record of Decision for EMDF. EPA and Tennessee Department of Environment and Conservation approved the document, in September 2022. OREM continued to conduct outreach and provide updates about the project as new details were available.

OREM hosted a public information session in December 2022 about the project's next steps, which included information about early site preparation and the groundwater demonstration study. OREM plans to host more events like this as the project progresses.

## Site-Specific Advisory Board

DOE created the EM Site-Specific Advisory Board (EM SSAB) to involve stakeholders more directly in EM cleanup decisions. Federal decision-making and cleanup activities are improved when stakeholders are involved and share their opinions. Public input helps agencies make decisions that are cost effective, community specific and environmentally sound, which leads to faster, safer cleanups.

EM SSAB activities are governed by the Federal Advisory Committee Act (FACA), which was enacted to ensure that the general public has access to advisory board deliberations and recommendations. While only one FACA-chartered EM SSAB exists, eight local boards exist under its umbrella charter. The boards include HAB, Idaho Cleanup Project Citizens Advisory Board, Northern New Mexico Citizens' Advisory Board, Nevada SSAB, Oak Ridge SSAB, SRS Citizens Advisory Board, Portsmouth SSAB, and Paducah Citizens Advisory Board.

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Local site board membership reflects diverse views, cultures, and demographics from affected communities and regions, because they are composed primarily of people who are directly affected by site cleanup activities. Members include stakeholders from local governments, tribal nations, environmental and civic groups, labor organizations, universities, industry, and other interested citizens.

In accordance with its charter, the EM SSAB exists to provide EM senior management with information, advice, and recommendations concerning issues affecting the EM program at various sites. Specifically, at the request of the Assistant Secretary or the site managers, the board may provide advice and recommendations concerning the following EM site-specific issues: clean-up activities and environmental restoration; waste and nuclear materials management and disposition; excess facilities; future land use and LTS; risk assessment; and communications.

EM continues to populate its advisory boards in a manner that mirrors the communities near DOE sites and in compliance with EO 14035, Section 5(e), and utilizes membership frameworks to guide recruitment efforts to ensure EM is assembling a diverse, community-focused advisory board. Tribal participation came by Yakama, Umatilla, and Nez Perce Tribes joining the Hanford Advisory Board (HAB) as advisory members. Northwest Indian College (NWIC) received a \$5 million STEM grant under the EM Minority Serving Institutions Partnership Program. HAB will work with officials from the NWIC satellite campus on the Nez Perce Tribal Reservation, to increase tribal capacity and to recruit tribal members to work with HAN.

### **SSAB Responsibilities**

- Submitting advice and recommendations to EM on site-specific issues.
- Representing and communicating the diverse community views in their discussions.
- Keeping the public informed on key issues, upcoming decisions, and board recommendations.

### **DOE Obligations to SSABs**

- Keeping the board informed about key issues and upcoming decisions.
- Requesting advice well ahead of DOE deadlines.
- Considering and responding in a timely manner to all board recommendations.
- Providing adequate funding for administrative and technical support.

SSAB Chairs held meetings in May and October 2022. Meeting information is available to the public and information on specific boards can be located at individual site webpages.

### **Southwestern Power Administration**

Southwestern Power Administration (SWPA) construction activities and operation and maintenance (O&M) activities that may affect or have a disproportionately high adverse effect on low-income, minority, and tribal populations include replacing powerline structures; new communication towers or extending communication towers height; sulfur hexafluoride gas emissions; substation upgrades; and universal waste-including hazardous waste from substation facilities.

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## Teaching Radiation, Energy, and Technology Workshop

About 25 local middle and high school teachers, students, and community representatives came together at the Augusta Technical College's satellite location in Waynesboro, Georgia, for the Teaching Radiation, Energy and Technology (TREAT), an event for area educators.



*Diverse community participants gather for TREAT workshops.*

Through an EJ grant, DOE partners with Savannah State University (SSU) to develop and carry out two annual workshops. The goal is to educate teachers of kindergarten through 12th grade and local community leaders in the Central Savannah River area about radiation, radiation sources, radioactive waste management, radiation effects on environmental health, and environmental radiation exposure negative impacts to humans.

TREAT workshops are designed to educate teachers so they can in turn provide radiation education to their students, and even encourage them to pursue careers in engineering and nuclear fields. Experts from



*From left, Savannah River Site Manager Mike Budney; DOE EJ Program Manager Melinda Downing; and SRS Senior Engineer Edwin Deshong at the TREAT for Community Leaders Workshop in Aiken, South Carolina, Oct. 12-13, 2022.*



*TREAT Community Leaders Workshop participants in Aiken, South Carolina, Oct. 12-13, 2022.*



DOE, SRS, EPA, and the Georgia Department of Natural Resources gathered to teach, answer questions, and discuss potential career opportunities. Melinda Downing, DOE's EJ program manager, welcomed the group and emphasized the workshop's importance. Participants heard about SRS's history and missions of, Radiation 101, the SRS Annual Site Environmental Report and a presentation by the Savannah Riverkeeper, a nonprofit organization that strives to respect, protect, and improve the entire Savannah River basin through education, advocacy, and action.

## VIII. STEM INTERNS AND WORKFORCE DEVELOPMENT

The demand for skilled workers in STEM fields is rapidly increasing. However, the qualified graduates supply is not keeping up with the demand. STEM education in workforce development can bridge the gap between academia and industry.

These important educational areas provide students with necessary skills and knowledge to succeed in the 21st-century workforce. STEM education is vital for workforce development by preparing students for high-demand jobs in STEM fields. It provides them with the technical expertise and practical skills needed to succeed in these fields. It equips students with problem-solving, critical thinking, and analytical skills that are essential in STEM fields, and helps them develop a strong work ethic, teamwork, and communication skills, which are essential in any workplace. Moreover, STEM education promotes innovation and creativity, which are crucial for developing new technologies and products.

DOE is building pathways for a diverse workforce to pursue STEM careers that will solve some of the most complex challenges of our time. DOE seeks to engage learners at all levels to promote STEM and energy literacy and to attract, inspire, and develop a STEM identity and a sense of belonging in STEM. Through [DOE's STEM opportunities](#), the Department is committed to promoting and supporting people from all backgrounds and perspectives, including individuals and communities that have been historically underrepresented in STEM fields and activities at DOE.

### Bonneville Power Administration Student Interns

Currently, Bonneville Power Administration (BPA) has 32 Pathways student trainees. Based on self-reporting, 26.08% of those students are minorities.

- African American – 13.3% (3 students).
- Asian – 8.7% (2 students).



*LM Site Manager Kate Whysner gives a presentation at Pomona Elementary School's Science Night at Eureka! McConnell Science Museum in Grand Junction on Jan. 25, 2022.*

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- Hispanic/Latino – 4.3% (2 students).
  - American Indian/Alaska Native – 0.0% (0 students).
  - Two or more races – 0.00% (1 student).

In 2022, BPA hosted three American Indian Science and Engineering students in partnership with the Advancing Indigenous People in STEM program.

### Clinch River Environmental Studies Organization

Started in 1989, Clinch River Environmental Studies Organization (CRESO) is an educational and research collaboration in Tennessee comprises three primary partners and an expanding number of secondary supporters. Primary partners include EM (funding and project oversight), Anderson County Schools (staff, student researchers, building maintenance, security, insurance and technical support, and Oak Ridge Schools (staff, student researchers, business, and budget overnight, and technical support). More than 800 students have served as primary researchers and hundreds more have experience program elements as field assistants, visitors, or through outreach efforts.

While most participants come from Anderson and Oak Ridge school systems, students from other schools throughout the area are also represented. Bringing together diverse students that represent various ages and backgrounds to accomplish common goals and promote a deeper community connection is a CRESO mission cornerstone.

Staff members and partners encourage and actively demonstrate teamwork as the overriding scientific research principle. Friendships developed through students having common interests and helping each other, often under harsh field conditions, while upholding exceptional research standards and ethics embodies the CRESO program's core. Because many high school participants enter STEM-related paths after graduation, CRESO's emphasis on teamwork and ethics serves them well.

In 2021, OREM continued to support numerous education initiatives and STEM programs. One very effective program is an annual grant OREM funds to CRESO. This local organization promotes environmental literacy in middle school and high school, and for undergraduate students through field research and learning experiences. Approximately 90 percent of the students who participate in this program enter STEM disciplines at the college level.

### Environmental Management STEM Initiatives

- EM provided cooperative agreement funding to support the Pace University Pre-College Immersion Program summer camp program in 2022. This is a two-week program designed for rising high school juniors and seniors. Students can take classes in business, theater arts, digital film production, health science, or psychology.
- In March 2022, HAN provided a course titled "Making the Connection: From Classroom to Great Careers at Hanford" to Pasco School District middle and high school educators. This course was an important first step to "train the trainers" for getting the word out about HAN jobs to next-generation professionals.
- HAN employees joined nearly 400 students at the Nez Perce Tribe's May 2022 Environmental and Cultural Knowledge Day in Lapwai, Idaho, to give an overview about environmental cleanup and industrial and radiological safety.

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- In June 2022, HAN leadership visited Northwest Indian College in Bellingham, Washington, to introduce an approximately \$5 million grant to train future scientists and engineers through EM's recently expanded Minority Serving Institution Partnership Program. HAN is located on Nez Perce, Umatilla, Wanapum, and Yakama Tribes' homelands. The Tribes participation in DOE decision-making enhances opportunities available to tribal students benefit that federal government and tribes.
  - HAN employees met with 17 students representing six different schools and four different Tribal Nations in July to talk about cleanup operations, technology, and employment opportunities during the Nez Perce Tribe's annual Preparing for Academic Excellence math and science camp.
  - A student summit, "Cleanup to Clean Energy," drew HAN employee participants to the Columbia Basin College (CBC) in Pasco, Washington, where they networked with more than 50 local high school students who are still contemplating post-graduation education options. The event goal was to ensure students are empowered with the skills and experiences to identify rewarding career paths in areas such as environmental restoration and renewable energy. With over 40 percent of its student population identified as Hispanic, CBC is recognized as a Hispanic-serving institution.
  - Hanford Mission Integration Solutions, a HAN contractor, hosted around 50 students from Chiawana High School to explore STEM topics and available careers in November. That same month, HAN employees also participated in the Southeastern Washington Future Workforce Summit to discuss how communities in and around HAN can build upon its nuclear expertise to create STEM opportunities for the future workforce. The summit featured representatives from business, labor, education, and government who are working on getting students from the classroom to high-demand careers, focusing on creating new partnerships to close talent gaps and better prepare students for career success. DOE HAN employees also supported annual career day at Delta High School in Pasco, Washington. The high school provides a STEM-based curriculum for students in grades 9-12 from the three school districts in the area.
  - During the last half of 2022, HAN dedicated a DOE representative to serve on the Waste Management Symposia STEM Committee. At the symposia held in Phoenix, a booth was staffed featuring activities highlighting STEM throughout the conference including interactive panels, a teacher workshop, a STEM Zone, a scavenger hunt, and much more.
  - HAN continued to hold and plan for future One HAN virtual career fairs, partnering with staff from HAN contractors; the Washington State WorkSource Center; Washington State University Tri-Cities; Columbia Basin College; and the Employment Security Department's veterans organization. Objectives and goals for future events to provide DOE and its contractors with an avenue to collectively advertise, market, and generate excitement for Hanford's important mission, its career opportunities, and to brand HAN as an employer of choice.
  - HAN employees participated in virtual career fairs, including the Society of Women Engineers, Veterans Readiness and Employment Virtual Job Fair, and the Recruit Military Northwest Region Career Fair, with the goal of increasing the awareness of HAN employment opportunities and developing a diverse workforce pipeline through internships and career entry-level positions.
  - The Hanford Workforce Management Division is responsible for administering the local DOE-RL/DOE-ORP year-round and summer intern programs. This requires coordination with DOE-HC, Oak Ridge Institute for Science and Education, DOE MES, and involvement with the DOE-HC Summer Intern Speakers Series and Orientation Program. The RL/ORP intern program typically has between 15 to 20 summer students and three to five year-round interns between both offices, but through 2022, it was scaled down to five interns who worked virtually to comply with COVID-19 safety protocols.

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- HAN also participated in the Columbia Basin Diversity and Inclusion Committee, a local committee in the HAN commuting area that works to promote and sustain a diverse workforce by uniting the talents of veterans, military spouses, and individuals with disabilities with employers in the Columbia Basin.

## Kansas City National Security Campus

In 2022, Kansas City National Security Campus (KCNSC) supported eight consortiums to develop a diverse workforce pipeline.

- The Pipeline Development of Skilled Workforce in STEM Through Advanced Manufacturing (STEAM).
- Advanced Manufacturing Post-Processing Partnerships (AMP3) Consortium.
- The Partnership for Research Education Consortium in Ceramics and Polymers (PRE-CCAP).
- Advanced Sensors Technologies for Applications in Electrical Engineering (ASTERIX).
- The Consortium Enabling in and Ex Situ-Quality Control of Additive Manufacturing (QCAM).
- Integrated Additive Manufacturing Establishing Minority Pathways: Opportunities for Workforce Development in Energy Research and Education (IAM-EMP).
- Advanced Synergistic Program for Indigenous Research in Engineering (ASPIRE).
- Indigenous Mutual Partnership to Advance Cybersecurity Technology (IMPACT).

KCNSC supported 18 Honeywell Federal Manufacturing & Technologies Strategic Partnership schools as part of the University Relations Strategies. There were four Minority-Serving Institutions (MSIs) on the FY 2022 list, to include three Hispanic-Serving Institutions (HSI's) and one historically Black college and university (HBCU). Additionally, KCNSC recruited at five Minority Serving Institutions Partnership Program (MSIPP) schools and three Honeywell Corporate-sponsored MSI's.

In the summer 2022, KCNSC supported two Tribal Colleges and Universities (TCUs) led programs. The first program provided students with hands-on electronics, hardware, and software experience using Arduino company's products for students interested in advanced manufacturing and engineering. The second program provided kindergarten through grade 12 students with an introduction in cyber security.

Through the MSIPP, KCNSC outreach continues to facilitate the KCNSC College Application Fair days at intercity schools in the Greater Kansas City metro area. This program introduces students to opportunities at MSIs, that they are not typically exposed. Teams from two HSI's and two HBCU's supported application and information fairs, waving application fees to their universities for almost 50 students.

KCNSC continues to support the Hope Scholarship Program, which started in 2015. The program is a steppingstone for high school students in the Greater Kansas City metro area and Albuquerque, New Mexico, who plan to earn trade certifications or associates degrees in a technical field such as machining, welding, electronics, engineering technology or information technology. Four students were selected for the scholarship and paired with a professional mentor for guidance and support.

KCNSC also continues to support the Honeywell Black Achievers Society Engineering Education Partnership scholarship. This scholarship is a \$5,000 recurring scholarship for African American students

who are heading to a four-year accredited engineering program. Honeywell awards two scholarships each spring to deserving students from urban high schools in the Kansas City area.

Additionally, the DOE NNSA Kansas City Field Office hosted an electrical engineering intern from North Carolina Agriculture and Technology (A&T) University through the NNSA Minority Serving Institutions Internship Program.

### Legacy Management Presents STEM Concepts to Pre-Kindergarten Students

DOE Office of Legacy Management FUSRAP Site Manager Darina Castillo represented STEM with LM at a pre-kindergarten community helper session at a Denver Metro area school on April 6. The students participated in a discussion about LM’s mission and how LM engineers and scientists help solve problems using science, technology, engineering, and math to protect human health and the environment. In addition to the discussion on LM and its mission, students engaged in a hands-on activity that included coloring pages related to Earth Day provided by the STEM with LM program. Teachers were also provided activities that included coloring pages like Women of the Manhattan Project, Women in STEM, Water or Hydrologic Cycle, and critters that live in mud and soils. Students also learned about things that harm the Earth and what people can do to help make a difference for the planet’s future, such as recycling or using renewable energy sources such as wind or solar. “The students recently learned about the solar system and the planets, so they were very engaged with the discussion of engineers and scientists protecting the Earth,” Castillo said. In addition to the STEM with LM activities, teachers received brochures on LM’s Manhattan Project National Historic Park.

### DOE Office of Legacy Management Hosts Annual STEM Envirothon Competition

The STEM Envirothon Competition is an international program that engages more than 25,000 high school students from the United States, Canada, and China annually. Students use STEM principles to gain hands-on learning experience in various outdoor fields, to expand their knowledge of the environment and natural resource conservation. These students spend months learning and studying in areas of aquatic ecology, forestry, soils and land use, wildlife, and current environmental issue, all with the goal of qualifying



*Students line up at Fernald Preserve near Hamilton, Ohio, to compete in the NCF-Envirothon.*

for the event. LM was privileged to have its Fernald Preserve site in southwest Ohio selected as the field-testing day site for the July 26, 2022, National Conservation Foundation’s annual STEM Envirothon competition. Fernald Preserve employees supported field day organizers, the Ohio Federation of Soil and Water Conservation Districts. Miami University of Ohio hosted the weeklong competition.

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## DOE Artificial Intelligence and Technology Office

DOE's Artificial Intelligence and Technology Office supported a project that aligns with Justice40, the Bipartisan Infrastructure Law, and Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*. The project aimed to address sewage infrastructure issues in an underserved, low-income community in Wellsville, Missouri, which has approximately 500 residents. Students from the University of South Alabama developed utility solutions to alleviate the strain caused by extreme flooding resulting from climate change. They presented their findings in three phases: rehabilitation alternatives for Vitrified Clay Pipes (VCP) constructed during the 1920s using trenchless technology; remediation measures for the existing wastewater treatment facility; and AI-driven recommendations for interested stakeholders.

## Office of Indian Energy Policy and Programs

IE also continued its support for STEM by continuing its internship program. Specifically, between 2010 and 2022, the program has resulted in the following:

- 31 undergraduate and graduate interns have participated.
- 12 different tribal affiliations.
- 26% of the interns converted to year-round status (8 of 31).
- 10% of the interns hired as Sandia National Laboratories full-time employees or contractors (3 of 31).
- 71% female interns (22 of 31).

## Office of Legacy Management Celebrates Nuclear Science Week

The LM Atomic Legacy Cabin (ALC) in Grand Junction, Colorado, celebrated Nuclear Science Week, Oct. 18-22. ALC participated in Nuclear Science Week by encouraging students and educators to “Get to Know Nuclear” through a free online Radiation – Energy in Motion program. Designed for upper elementary school students, a video and free downloadable activity packet was intended to help students learn about the types of radiation, where it comes from, and how LM protects human health and the environment through radiation control at its sites. Nuclear Science Week focuses on the nuclear science five pillars: carbon-free energy, global leadership, transformative healthcare, innovation and technology, and space exploration. Although the national celebration took place in Washington, D.C., local communities got involved by having their own events. Grand Junction City Council issued a proclamation declaring Oct. 18-22 Nuclear Science Week in the city. The interpretive center continues to support STEM curricula at all grade levels and is ready to connect students with experts in many fields.

## Los Alamos National Laboratory Activities

At LANL, in addition to administering the MSI program, the laboratory managed several DOE-sponsored internships and outreach efforts minority and low-income communities including:

- National GEM Consortium (GEM).
  - LANL secured nine new participants.
  - LANL GEM fellows now number 30, which is the largest in laboratory history.

- Graduate Fellowship Program (GFP).
  - GFP continued its involvements and hired 12 fellows.
  - GFP remains an integral workforce pipeline for weapons and science, technology, and engineering at LANL.

## Mentors for Environmental Scholars

In 2022, the Mentors for Environmental Scholars (MES) program recruited, trained, and placed 19 underrepresented students from minority serving institutions at DOE laboratories and field offices around the United States. Annually the program recruits students who major in fields that are important to the DOE mission, for 10-week assignments each summer.



*Back row from left to right, 2022 MES attendees: Oak Ridge National Laboratory Talent Development Manager Sue Hall; ORNL Exercise Physiologist Kathryn S. Pittman; ORNL Office of Research Excellence Director Dr. Moody Altamimi; ORNL Postdoctoral Research Scientist Dr. Alexander Fisch; ORNL Senior Research and Development Scientist Dr. Denise Antunes da Silva; ORNL Educational Programs Specialist Michael Whetstone. Front row from left to right, interns: Femi Epps, Morgan State University, Maryland; Noel Herron, Elizabeth City State University, Virginia; Madison Jefferson, Prairie View A&M University, Texas; Shelby Thomas, Claflin University, South Carolina.*

MES program representatives select from student summer interns who have an interest in EJ and guide them through an extended academic year program that helps them create content for a virtual Environmental Justice Academy that is offered to the public. These courses include subjects from Environmental Justice 101 to Understanding the Value of Environmental Justice. Additionally, the MES program hosts EJ outreach programs for middle and high school students in varying communities around the country. These summer camps introduce student participants to environmental justice, help participants identify environmental injustices in their community, and assist participants with creating a public service announcement or community service projects that bring awareness to EJ issues.

The MES program has introduced nearly 400 students to DOE and assisted with its diverse workforce. Through participation in the program student interns become EJ ambassadors. Students are also given opportunities to work at DOE labs and create EJ content. MES participants have presented their research and course content at the annual NEJC.

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When DOE awarded the grant to Pre-College University, Inc., the goal was to increase the number of underrepresented individuals who pursued employment within the agency’s laboratories and offices. Sierra Generette, a two-year MES program participant — and first-ever MES academic year internship position recipient — was hired by United Cleanup Oak Ridge (UCOR) following her summer internship experience. PCU originated the idea to use Summer Experience interns to advanced DOE’s student exposure with the goal to bring passionate EJ employees to its workforce. During her academic year experience, Generette developed training courses that would eventually populate the Virtual Environmental Justice Academy. After graduation, Generette became a UCOR summer intern, where she focused on waste management, a specialty that Generette picked up during her undergraduate studies at North Carolina A&T State University.

## Nuclear Energy Provides STEM Support

NE staff followed up on tribal input for STEM education based on a survey conducted on the Tribal STEM Subcommittee’s behalf. A STEM framework that included resources was discussed with a plan to continue implementation in 2023.

- In March 2022, DOE NE employees presented to the STGWG and the Tribal STEM Subcommittee on STEM and workforce development efforts at DOE. The Department’s extramural STEM training and engagement efforts are critical to creating the diverse, skilled workforce that is needed to tackle the greatest scientific, technical, economic, and societal challenges to date. One DOE STEM principle is diversity, inclusive, and equitable access to STEM workforce training, professional development, programs, resources, and funding. This principle has been central to developing the DOE STEM website.
- In August, NE staff and “100Kin10” (a 2011 charge taken by 28 organizations to prepare 100,000 STEM teachers in 10 years) project team members supporting stem education in tribal communities conducted a focus session at Shoshone-Bannock Tribes Fort Hall Reservation as the FIRST STEPS resource for engaging Indigenous communities in STEM. NE staff and 100Kin10 program team members also conducted focus sessions at the Pueblo of Jemez, Pueblo of Pojoaque, and Pueblo of San Ildefonso in August. NE staff co-leads a project team with a Shoshone-Bannock Tribal Member for the 100Kin10/Beyond 100K Supporting STEM Education in Tribal Communities project team. Members authored and developed the FIRST STEPS resource for Engaging with Indigenous communities in STEM. Team members are exploring using the resource for non-Native educators along with government and industry.
- NE provided STEM resource support with STEM Santa Fe and will try to honor a request for in-person STEM support in 2023.
- NE is the point-of-contact for the National Space Council (NSpC) Space STEM Task Force. In September 2022, NE attended the National Space Force meeting in Houston, Texas, and participated in the NSpC Learning Lunchbox Kit and Game Board Launch Distribution with Houston Foodbank and Boys and Girls Club.
- For its University Nuclear Leadership Program scholarship opportunity, NE implemented a track focused on students receiving nuclear-relevant technician training in areas such as nuclear operations, health physics, and mechanical maintenance at two-year trade schools and community colleges. NE awarded one scholarship in FY 2021 and one in FY 2022 through this track.
- NE offered research and development work scopes in its Consolidated Innovative Nuclear Research FOA that relied on nuclear energy experts knowledge, as well as knowledge from social science disciplines that include sociology, political science, psychology, economics, education, and business



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management, and required MSI collaboration. NE awarded more than \$5.8 million for two integrated research projects under this FOA, one focused on consent-based siting and the other on workforce development. More than \$400 thousand went to a new HBCU participant as a collaborating institution.

- NE incorporated diversity, equity, inclusion (DEI)-related policy factors across its university program opportunities. In addition, its FOA includes a Diverse Team Scoring criterion, which is evaluated based on the degree to which an application is led by or effectively partners with MSIs. In FY 2022, NE issued more than \$6.5 million to MSIs through its university program opportunities.
- NE's University and Competitive Research Team has established a University Programs Engagement Committee composed of individuals from HBCUs and other MSIs to provide guidance for creating more purposeful opportunities that leverage the capabilities at these institutions. The team has returned to hosting university visits to talk with students and faculty to promote university program funding opportunities. These include visits to two- and four-year institutions as well as MSIs, including HBCUs and TCUs. The team also hosted various informational webinars for the community and attended numerous conferences such as the 2022 National HBCU Week.
- INL's MOU with Shoshone-Bannock School District 537, has INL working closely with Shoshone-Bannock Tribes to create meaningful education and career pathways for students. The MOU creates a place-based, culturally responsive program designed to bring opportunities to tribal schools and bring students to the lab for work-based learning. The K-12 education team assisted faculty and administration to design culturally responsive teaching and learning through project-based, place-based, and service-learning approaches as they work toward STEM school designation. At a Tribal-leaders request, students received a valuable cultural lesson making bодо sticks, which are traditionally used to dig up plant bulbs harvested on tribal lands. First-year coursework was designed and delivered in both the industrial mechanics and construction trades pathways. Shoshone-Bannock High School career technical students studying either industrial mechanics or construction trades were eligible to participate in a six-week paid summer internship at INL, working while being supervised by instructors and safety personnel through the INL Future Corps Program. In June, INL welcomed high school students for the Work Based Learning Program during which students spent six weeks working onsite with mentors from INL's Facilities and Site Services and Materials and Fuels to explore trades, crafts, fabrication, and operations. The coursework and work-based learning program prepares students with the skills and experience necessary for entry-level trades and crafts positions at INL.
- INL's EJ program has taken an internally led community approach to formalizing EJ systems under Justice40 directives. This includes building relationships by using the Climate and Economic Justice Screening Tool (CEJST) as a guide for connecting with current and past communities for research and development. EJ program representatives have participated in multiple events sharing CEJST and its usefulness for research and development that directly benefits disadvantaged, rural, and tribal communities.

## National Nuclear Security Administration STEM Activities

The NNSA MSIPP is an ongoing effort to build a sustainable pipeline between DOE sites/labs and MSIs through paid internships and collaborative science and engineering projects. Funded by NNSA, many of the consortiums also include STEM educational outreach initiatives to underrepresented K-12 students.

MEISPP offers talented undergraduate and graduate students 10-week summer internships with DOE and its national laboratories. The program reaches out to minority students at MSIs and other colleges with large minority populations. Interns from across the United States and Puerto Rico have participated. The goal is to excite and prepare students for STEM and energy careers at DOE and other federal

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agencies, or within the private sector. Engaging in exciting, fulfilling work, gaining confidence, and making career contacts opens opportunities for students with diverse background and geographies.

### **Savannah River Site Provides Analytical Equipment to Students**

SRS maintained cutting-edge environmental analytical laboratory equipment for the SSU environmental science students and Environmental Scholars Program students. The state-of-the-art equipment gives students the opportunity to conduct projects, such as greenhouse studies, wastewater and laboratory column studies, and river sediment collection and analysis for inorganic and organic contaminants.

The environmental sciences curriculum continues to be enhanced through the DOE-funded EJ grant and has given more than 43 environmental science students an opportunity to become technically qualified to assist SRS and other federal agencies in the future as they face challenging employee reduction due to aging workforces.

## ACRONYMS

<b>Age Act</b>	Age Discrimination Act of 1975
<b>AISES</b>	American Indian Science and Engineering Society
<b>ACL</b>	Atomic Legacy Cabin
<b>AEC</b>	U.S. Atomic Energy Commission
<b>AABE</b>	American Association of Blacks in Energy
<b>ANS</b>	American Nuclear Society
<b>AML</b>	Abandoned Mine Lands
<b>AR</b>	Administrative Records
<b>AUEJI</b>	Allen University Environmental Justice Institute
<b>The BIL</b>	Bipartisan Infrastructure Law of 2021
<b>BPA</b>	Bonneville Power Administration
<b>Braintrust</b>	Congressional Black Caucus Environmental Justice Braintrust
<b>BLM</b>	U.S. Bureau of Land Management
<b>CBC</b>	Congressional Black Caucus
<b>CERCLA or Superfund</b>	Comprehensive Environmental Response, Compensation and Liability Act
<b>CFR</b>	Code of Federal Regulations
<b>CLI</b>	Community Leaders Institute
<b>CRESO</b>	Clinch River Environmental Studies Organization
<b>CRM</b>	Cultural Resource Management
<b>DACs</b>	Disadvantaged Communities
<b>Docket</b>	Federal Agency Hazardous Waste Compliance Docket
<b>DOE or Department</b>	U.S. Department of Energy
<b>DOE-ID</b>	DOE Idaho Operations Office
<b>DOT</b>	U.S. Department of Transportation
<b>DRUM</b>	Defense-Related Uranium Mines
<b>EHSS</b>	U.S. Department of Energy's Office of Health, Safety and Security
<b>EJ</b>	Environmental Justice
<b>EJP</b>	Environmental Justice Program at Idaho Operations Center
<b>EM</b>	U.S. Department of Energy's Office of Environmental Management
<b>EMDF</b>	Environmental Management Defense Facility
<b>EM-ID</b>	Environmental Management at Idaho Operations Office
<b>ENRD</b>	Environmental and Natural Resources Department
<b>EO 12898</b>	Executive Order 12898
<b>EO 13985</b>	Executive Order 13985
<b>EO 14008</b>	Executive Order 14008
<b>EO 14052</b>	Executive Order 14052
<b>EO 14057</b>	Executive Order 14057
<b>EO 13091</b>	Executive Order 14091
<b>EPA</b>	U.S. Environmental Protection Agency
<b>FACA</b>	Federal Advisory Act
<b>FFA</b>	Federal Facility Agreement
<b>FHBC</b>	Fort Hall Business Council
<b>FRA</b>	Federal Railroad Administration
<b>FY</b>	Fiscal Year
<b>HAB</b>	Hanford Advisory Board (Local of the HAN Site-Specific Advisory Board)
<b>HAN</b>	Hanford Site, Washington

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<b>HBCUs</b> .....	Historically Black Colleges and Universities
<b>IAC</b> .....	White House Environmental Justice Interagency Council
<b>ICEIWG</b> .....	Indian Country Energy and Infrastructure Working Group
<b>IE</b> .....	U.S. Department of Energy's Office of Indian Energy Policy and Programs
<b>INL</b> .....	Idaho National Laboratory
<b>KCNCS</b> .....	Kansas City National Security Campus
<b>LANL</b> .....	Los Alamos National Laboratory
<b>LTS</b> .....	Long-term Stewardship
<b>MES</b> .....	Mentors for Environmental Scholars
<b>MIA</b> .....	Memorandum-In-Agreement
<b>MOU</b> .....	Memorandum-Of-Understanding
<b>MSIPP</b> .....	Minority Serving Institutions Partnership Program
<b>MSIs</b> .....	Minority-Serving Institutions
<b>MUSC</b> .....	Medical University of South Carolina
<b>NCSL</b> .....	National Conference of State Legislatures
<b>NE</b> .....	U.S. Department of Energy Office of Nuclear Energy
<b>NE-82</b> .....	U.S. Department of Energy Office of Nuclear Energy/Office of Integrated Waste Management
<b>NEJC</b> .....	National Environmental Justice Conference and Training Program
<b>NEPA</b> .....	National Environmental Policy Act
<b>NETWG</b> .....	Nuclear Energy Tribal Working Group
<b>OCR</b> .....	Office of Civil Rights
<b>OREM</b> .....	Oak Ridge Office of Environmental Management
<b>PCU</b> .....	Pre-College University, Inc.
<b>PIP</b> .....	Public Involvement Plan
<b>PIR</b> .....	Public Information Repositories
<b>RCRA</b> .....	Resources Conservation and Recovery Act
<b>RQ*</b> .....	Recordable quantity
<b>SAN</b> .....	Sustainability Assistance Network
<b>STEM</b> .....	Science, Technology, Engineering, and Mathematics
<b>Section 504</b> .....	Section 504 of the Rehabilitation Act of 1973
<b>SF6</b> .....	Sulfur Hexafluoride
<b>SFIS</b> .....	Santa Fe Indian School
<b>SPCC</b> .....	Spill Prevention, Control and Countermeasure
<b>SRS</b> .....	Savannah River Site
<b>SSAB</b> .....	Site-Specific Advisory Board
<b>SSU</b> .....	Savannah State University
<b>STGWG</b> .....	State and Tribal Government Working Group
<b>Strategy</b> .....	Environmental Justice Strategy
<b>SWE</b> .....	Society of Women Engineers
<b>SWPA or</b>	
<b>Southwestern</b> .....	Southwestern Power Authority
<b>TAWs</b> .....	Technical Assistance Workshops
<b>TCUs</b> .....	Tribal Colleges and Universities
<b>TDEC</b> .....	Tennessee Department of Environmental and Conservation
<b>TIGR</b> .....	Tribal Intergovernmental Relations Group
<b>Title IX</b> .....	Title IX of the Education Amendment of 1972
<b>Title VI</b> .....	Title VI of the Civil Rights Act of 1964

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<b>TPA</b> .....	Tr-Party Agreement
<b>TREAT</b> .....	Teaching Radiation, Energy, and Technology
<b>TRMTC</b> .....	Tribal Radioactive Material Transportation Committee
<b>UMTRA</b> .....	Uranium Mill Tailings Remedial Action
<b>USDA</b> .....	U.S. Department of Agriculture
<b>USFWS</b> .....	U.S. Fish and Wildlife Service
<b>WAPA</b> .....	Western Area Power Administration
<b>WIPP</b> .....	Waste Isolation Pilot Plant
<b>WSU</b> .....	Washington State University

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