

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

**Fiscal Year 2021-2022**



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## FORWARD

The U.S. Department of Energy (DOE or Department) gladly presents our 2021 *U.S. Department of Energy Joint Environmental Justice Annual Implementation Progress Report and Second Environmental Justice Five-Year Implementation Plan*. 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 environmental justice (EJ) efforts a success.

On Feb. 11, 1994, President Clinton issued Executive Order 12898 (EO 12898), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The order tasked each federal agency to make achieving EJ part of its mission. EO 12898 also states, "each federal agency's responsibility under this order shall apply equally to Native American programs." EO 12898, requires federal agencies to identify and address, as appropriate, "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Fair treatment cannot be realized if minority populations and low-income populations face especially high levels of air pollution or are especially vulnerable to the adverse effects of climate change.

Fair treatment will be achieved when all groups gain the same degrees of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

President Biden reinforced the importance of EJ with Executive Order 13985 (EO 13985), *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* and Executive Order 14008 (EO 14008), *Tackling the Climate Crisis at Home and Abroad*. These EOs do not merely reaffirm the federal government's commitment to identify and address EJ concerns, they also offer new principles, commitments, and guidance, especially in the domains of climate change and racial equity.

In 2008, the Department created an Environmental Justice Strategy based on EO 12898 that included developing a [DOE Environmental Justice Five-Year Implementation Plan](#) and mandated annual reports on the progress of that plan. In August 2011, following a day-long symposium at the White House, 17 federal agencies signed a [Memorandum of Understanding](#) (MOU) on EJ that recommitted and prioritized EJ throughout the federal government. The MOU directed each agency to develop an annual implementation strategy progress report on the anniversary of EO 12898.

The Department's EJ Five-Year Implementation Plans reflect a solid commitment to EO 12898, EO 13985, and EO 14008, and the MOU. They also address our current DOE [2019 Environmental Justice Second Five-Year Implementation Plan](#).

The goals and activities included in this 2021 *U.S. Department of Energy Environmental Justice Implementation Progress Report* and the *Second Environmental Justice Five-Year Implementation Plan* 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.

*Carmelo*

Carmelo Melendez  
Director  
Office of Legacy Management

This document serves as the *2021 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. PURPOSE

In 1994, President William J. Clinton signed Executive Order 12898 (EO 12898), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. EO 12898 addresses how “each federal agency shall make achieving environmental justice (EJ) part of its mission.” This fiscal year (FY) 2021 *U.S. Department of Energy Joint Environmental Justice Annual Implementation Progress Report* (Report) and *Second Environmental Justice Five-Year Implementation Plan* (Plan) provides an opportunity to demonstrate how the U.S. Department of Energy (DOE or Department) has integrated EJ into its mission.

EO 12898 requires federal agencies to identify and address, as appropriate, “disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Fair treatment cannot be achieved if minority populations and low-income populations face high levels of air pollution or are vulnerable to the adverse effects of climate change. Fair treatment will be realized when all groups are granted the same degrees of protection — the constitutional principle of “equal protection” — from environmental and health hazards and obtain equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

Executive Order 13985 (EO 13985), *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* and Executive Order 14008 (EO 14008), *Tackling the Climate Crisis at Home and Abroad*, do not merely affirm the federal government’s commitment to identify and address EJ concerns, they also offer new principles, commitments, and guidance, especially in the domains of climate change and racial equity.

This joint Report includes Department activities achieved during 2021 as required by the MOU. The Report also highlights the DOE programs’ accomplishments and commitments within the second EJ Five-Year Implementation Plan for FY 2021-FY 2022. Both reports span the full range of missions and goals, from basic science to clean energy, environmental stewardship, and nuclear security and remains consistent with the DOE mission. DOE program representatives collaborated with participating communities, American Indian and Alaska Natives, non-governmental organizations, academic institutions, and private-sector partners to make the Department’s EJ efforts successful.

## II. INTRODUCTION/OVERVIEW

Following the EO 12898 directive, DOE developed and issued its *first Environmental Justice Strategy* in 1995, directing all DOE programs to integrate EJ into their mission activities. DOE updated and issued its *second Environmental Justice Strategy* in 2007. Reinforcing DOE’s commitment to EJ, on Aug. 4, 2011, the Department joined 16 other executive branch agencies in signing the Memorandum of Understanding (MOU) on EJ. The MOU was a crucial step in furthering the administration’s commitment to ensure healthy communities for all Americans.

The MOU further advances federal agency responsibilities under EO 12898. In its Environmental Justice Strategy, Annual Implementation Progress Reports, and other efforts. Each federal agency will identify and address, as appropriate for its mission, any disproportionately high and adverse human health or

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environmental effects of its programs, policies, and activities on minority populations and low-income populations, including, but not limited to (includes interagency collaborations):

- 1) National Environmental Policy Act (NEPA) implementation.
- 2) Title VI of the Civil Rights Act of 1964 (as amended) implementation.
- 3) Climate change impacts.
- 4) Commercial freight transportation activity and supporting infrastructure (i.e., goods movement) impacts.

We could not be more excited and prouder of the cleaner water, cleaner air, safer climate, and more equitable opportunities that these historic investments will provide for this and future generations. In addition to dramatically expanding America's investment in EJ, the administration has mobilized every federal agency to transform hundreds of programs to meet the Justice40 Initiative goal and ensure that disadvantaged communities are receiving the benefits of new and existing investments. The Biden-Harris administration has worked every day to deliver on the president's vision for the [Justice40 Initiative](#).

The DOE EJ program's goals and activities are based on clear priorities and tangible benefits that consider programmatic, legislative, and regulatory responsibilities and emphasize community participation and empowerment, and stakeholder involvement. Additionally, they encourage innovative approaches to occupational and environmental science research for high-risk communities and workers, embrace interagency coordination to facilitate EJ, and heighten manager and staff sensitivity to EJ through the Department.

### III. IMPLEMENTING ENVIRONMENTAL JUSTICE STRATEGY AND IMPLEMENTATION PLANS

In 2017, DOE issued its [third Environmental Justice Strategy](#) (Strategy) further demonstrating our Department-wide commitment to EO 12898, which included EJ commitments from both program and field offices. The 2017 Strategy provides a roadmap for our goals and objectives, highlights our major priorities for the next five years, and is reflected in individual program plans. This Strategy provides an overarching vision that is reflected in DOE's EJ goals:

- 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

### IV. ENVIRONMENTAL JUSTICE STRATEGY

In alignment with its Strategy, the DOE EJ program prepared its [Second Five-Year Implementation Plan](#). DOE program offices identified and committed to develop and implement up to five EJ commitments over

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the five-year period of the plan. Their progress to achieve these goals is compiled on an annual basis; the latest was released as the [2020 DOE Environmental Justice Implementation Progress Report](#).

Key priorities that will increase community engagement and opportunities:

- Tribal training, education, and internships.
- Community-driven activities.
- Capacity-building.
- Public and private industry partnerships.
- Opportunities for minority populations and low-income populations.
- Opportunities for American Indian and Alaska Natives.

EJ has purposely developed broad goals to guide the Department's Environmental Justice Five-Year Implementation Plan with specific targets adapted to appropriate responsibilities and priorities. DOE is committed to addressing the complexity of EJ in a timely, deliberate, and coordinated manner.

DOE is committed to achieving EJ by making a visible difference as we conduct our day-to-day activities. The Department strives to create opportunities to improve the environment and human health in all DOE program communities while ensuring that no population suffers a disproportionate share of adverse environmental effects.

The Department continues to deliver innovative and transformative scientific and technological solutions to energy, security, economic, and environmental challenges facing the United States in the 21st century. Using more established programs' best practices, we continue to seek new ways to implement and advance our overall EJ 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 serve 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 initiatives. 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 Indians, and Alaska Natives. Our goal is to achieve EJ and foster nondiscrimination in programs that affect human health and the environment.

More than 25 years after the signing of EO 12898, DOE remains committed to the principles of EJ and continues to build upon the order's legacy.

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

DOE continues to collaborate 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. Examples of these activities follow.

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## White House Environmental Justice Interagency Council (IAC)

As part of President Biden’s historic commitment to environmental justice, he created the [White House Environmental Justice Interagency Council](#) when he signed EO 14008 just days after taking office and elevated the leadership to the Executive Office of the President Council on Environmental Quality (CEQ) to coordinate interagency EJ activities.

EO 14008 charges the IAC with developing “a strategy to address current and historic environmental injustice by consulting with the White House Environmental Justice Advisory Council (WHEJAC) and with local environmental justice leaders.” It further requires the IAC to “develop clear performance metrics to ensure accountability, and publish an annual public performance scorecard on its implementation.” The IAC was also responsible for recommending updates to EO 12898.

The IAC and all of its members have played an important role in the development and execution of the following:

- The Justice40 Initiative: Federal agencies have shared best practices and lessons learned to implement the government-wide Justice40 Initiative. In addition, the IAC was consulted in the development of the [Interim Implementation Guidance](#) for the Justice40 Initiative, which was issued on July 20, 2021.
- The Climate and Economic Justice Screening Tool (CEJST): The IAC provided input to inform the Council on Environmental Quality (CEQ) creation of a beta – or draft – version of the CEJST. During the beta phase, Federal agencies involved with the IAC have also provided ongoing feedback for improving the beta version of the CEJST.
- Update to EO 12898: The IAC provided feedback on how EO 12898 should be updated, and also provided comments on the WHEJAC recommendations regarding the revisions to EO 12898, which were included in the WHEJAC’s May 2021 report.

The IAC has numerous committees that meet on a regular basis to discuss the Whole-of-Government Approach to EJ. The committee meetings are attended by staff dedicated to advancing President Biden’s EJ agenda. When matters are ready for resolution, they are brought to the attention of the full IAC and voted on during formal IAC meetings.

The IAC replaced the [Interagency Working Group on Environmental Justice](#) (IWG), which was established in 1994 and convened by the EPA. In EO 14008, President Biden created the IAC in order to elevate the body and enable the Executive Office of the President to coordinate interagency efforts on environmental justice. All of the former IWG committees have been included in the IAC and new committees have been created. Committees include: the Justice40 Initiative, NEPA, Public Participation, Rural Communities, Strategy and Implementation, Regional, Native Americans and Indigenous Peoples, Impacts from Commercial Transportation – Goods Movement, Title VI of the Civil Rights Act, and Natural Disasters & Environmental Justice.

## Community Outreach and Education

Education and training are the most effective ways to address EJ concerns, as they allow stakeholders to be involved with and participate meaningfully in the decision-making processes to improve their communities and use processes to improve their communities.

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DOE communicates and engages with local communities, state and local governments, and tribal nations in person, print, and digitally through:

- Public meetings.
- Conferences.
- Outreach events.
- Fact sheets.
- Brochures.
- Stakeholder surveys.
- Press releases.
- Quarterly Program Updates.
- EJ information briefs.
- Social media updates.

DOE Environment, Health, Safety and Security (EHSS) provided presentations to the Sustainability Assistance Network (SAN) and the Cultural Resource Management (CRM) webinars. SAN and CRM participants are drawn from program offices and sites throughout the DOE and the National Nuclear Security Administration (NNSA) complex. Also, DOE Headquarter's observance of Earth Day included informational material about EJ.

Public participation is one of the cornerstones of EJ. Public participation and community involvement strategies must include a proactive public-involvement process that provides complete information, timely public notice, full public access to key decisions, and supports early and continuing public involvement in developing plans, programs, and research. The Department includes the following community engagement initiatives.

## **Title VI of the Civil Rights Act of 1964**

The Office of Civil Rights (OCR) administers DOE policies, practices, and procedures related to internal and external civil rights. OCR administers DOE internal civil rights programs under the following statutory mandates: [Title VI](#), as amended; the [Age Discrimination in Employment Act of 1967](#); [Section 501 of the Rehabilitation Act of 1973](#); the [Equal Pay Act of 1963](#); and the [Genetic Nondiscrimination Act of 2008](#).

OCR administers DOE's external civil rights programs pursuant to the following statutory mandates: [Title VI](#); [Title IX of the Education Amendments of 1972](#) (Title IX); [Section 504 of the Rehabilitation Act of 1973](#) (Section 504); and the [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.

## **National Environmental Justice Conference and Training Program (NEJC)**

Since 2007, DOE has been a sponsor for the Annual Environmental Justice Conference and Training Program (NEJC). NEJC is the nation's largest annual EJ conference. In keeping with COVID-19 safety and health protocols, the 2021 conference and training program was held virtually for the second year

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in a row. The Oct. 27-29 NEJC theme, “Addressing Health Disparities, Environmental Justice, and Shaping the Future of Healthcare,” recognized the nation’s rapidly changing and diversifying landscape. The conference and training program was conducted jointly with the 13th National Conference on Health Disparities (NCHD). Leaders from NEJC and NCHD came together to engage communities as full partners in collaborative solutions to the many issues and challenges affecting the nation today. This was the second time these two important national conferences were conjoined and hosted more than 500 registrants, including representatives from federal, state, and local government agencies; public and private sector organizations; non-profits; and academic institutions. The joint conference agenda was filled with three days of thought-provoking speakers and panels along with numerous opportunities to hear from young people, activists, governmental representatives, and others from all over the country who are engaged in and committed to the principles of EJ and eliminating health disparities.

The relationship between health disparities and EJ is increasingly more important as we continue to deal with the devastating effects of the COVID-19 pandemic — as well as federal, state, and local government actions related thereto — has had on societies that need and deserve EJ, which include low-income, American Indian and Alaska Native communities that are the most vulnerable and have long been decimated by health disparities.

Presentations given by individuals with unique backgrounds and different experiences shared the concept that conference goers believe EJ cannot exist without informed citizenry and communities. They collectively believe that all Americans are entitled to live in a healthy environment, and that empowerment is the key to advancing any worthy cause aimed at improving the lives and quality of life for everyone, especially those in underserved and underrepresented communities.

The conference highlighted EJ, but there is more to do to prepare future EJ leaders to take the mantle in developing capacity-building techniques, education, training, outreach, policies, collaborations, projects, and activities now and in the future. Attendees left the virtual conference with a renewed commitment to cooperate, forge partnerships, and take advantage of all opportunities to build and sustain safe and healthy communities.

Presentations included:

- Understanding the Relationship Between Health Disparities and Environmental Justice During the COVID-19 Pandemic.
- Climate Change and Climate Justice.
- Federal Title VI and Environmental Justice Priorities.
- The Role of Social Justice in Addressing Health Disparities and Environmental Justice.
- Educate, Motivate, Innovate (EMI): Building the Next Generation of Environmental Justice Leaders (IWG EJ, which was replaced by the IAC).

NEJC also provided virtual workshops and training programs. The June 2021 workshop focused on NEPA, and the July 2021 event centered on disaster citizen science.

Visualizing Equity through NEPA topics included:

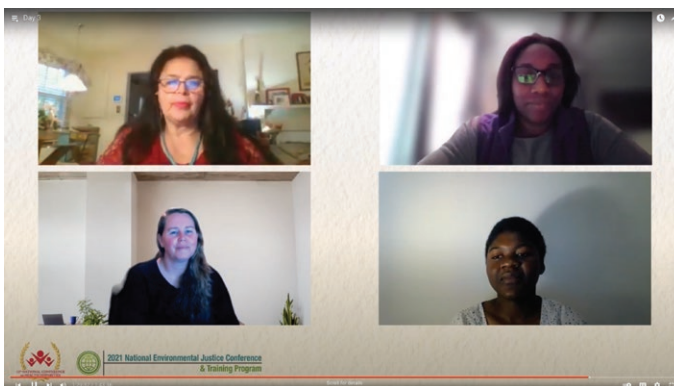
- Setting the Stage: The Relationship of NEPA and Environmental Science Through Executive Orders.



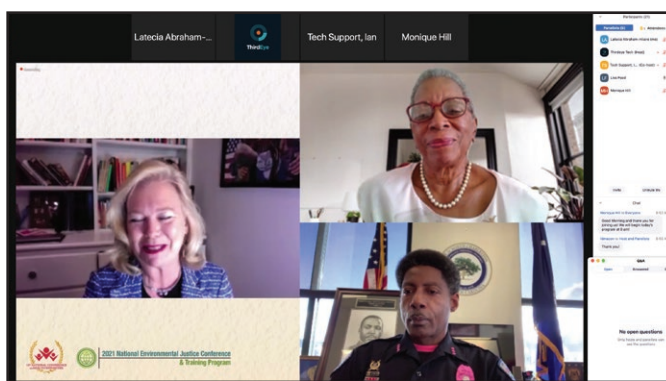
*Mr. Benjamin F. Wilson, Special Presenter at NEJC*

- Diagnosing Basic Needs and Safety: Nature of Environmental, Health, and Economic Equity Challenges Facing Underserved Communities.
- Problem Solving: How NEPA Can Address Equity in Underserved Communities.
- Achieving Environmental Justice Through Disaster Citizen Science.

The final panel introduced attendees to the growing field of disaster citizen science and the toolkit designed to provide guidance on using citizen science strategies to support community preparedness, response, and recovery. Communities of color and lower-income communities are often at the frontline of disaster events.



*Online Panel for the NEJC*



*Online Panel for the NEJC*

“ Disaster citizen science, also known by other names such as “community science” or “street science,” is the use of scientific principles or methods by nonprofessional scientists to address issues related to disasters or community hazards. ”

These communities tend to be more exposed and susceptible to disaster harms and effects. Despite their vulnerabilities, these same communities are often at the forefront of grassroots solutions. There are many potential benefits of citizen science for EJ communities, including improving disaster preparedness and meaningful community empowerment. Many communities have been instrumental in leading citizen or community science efforts. More than 200 participants attended this interactive session that provided a resource of tools and information that can be replicated throughout EJ communities.

### Joint DOE Federal and Contractor Environmental Attorneys’ Training

EHSS cosponsored Tribal trainings related to compliance with [DOE Order 144.1](#), [DOE American Indian Tribal Government Interactions and Policy](#), and EO 12898. In addition, EHSS also cosponsored the virtual

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## National Environmental Justice Conference & Training Program Sponsors

**Kim Lambert**  
Environmental Justice  
Coordinator, U.S. Fish  
and Wildlife Service



2021 Joint DOE/DOE Contractor EJ Attorney's training that contained an EJ/Tribal component. That training reached 86 site and program office representatives. The training was oriented to benefit federal and contractor staff, regulators, Tribal Nations, and stakeholders. The training included outreach from the DOE.

### Justice40 Initiative

The DOE [Justice40 Initiative](#) is required by EO 14008. The initiative is a government effort to deliver at least 40 percent of the overall benefits from certain federal investments to disadvantaged communities. On July 20, 2021, the *Interim Implementation Guidance for the Justice40 Initiative* (Interim Guidance) was released in accordance with EO 14008. This guidance supports the administration's comprehensive approach to advancing equity for all people in the United States. DOE Office of Environmental Management Los Alamos Field Office (EM-LA) in New Mexico was chosen by the administration's Office of Management and Budget (OMB) as a pilot program for Justice40 Initiative.

Eight sites and two programs focused on community engagement grants and cooperative agreements fall under the EM Justice40 Initiative Covered Program. A "Covered Program" is a federal government program that makes investments that can benefit disadvantaged communities across one or more of the following seven areas:

- Climate change.
- Clean energy and energy efficiency.
- Clean transit.
- Affordable and sustainable housing.
- Training and workforce development.

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- Remediation and reduction of legacy pollution.
  - Development of critical clean water and wastewater infrastructure.

EM's Covered Program is "Remediation and Reduction of Legacy Pollution."

EM's Covered Program **sites**:

- Hanford Site (HAN), Washington.
- Idaho National Laboratory (INL), Idaho.
- Lawrence Livermore National Laboratory, California.
- Los Alamos National Laboratory (LANL), New Mexico (EM-LA legacy cleanup).
- Moab, Utah.
- Nevada National Security Site, Nevada.
- Sandia National Laboratory, New Mexico.
- Savannah River Site (SRS), South Carolina.

EM's Covered Program **programs**:

- Community Engagement Grants:
  - HAN: Tribal grants and states of Washington and Oregon grants.
  - INL: Shoshone-Bannock Tribal DOE program grants.
  - SRS: Grants for Savannah State University, University of South Carolina, and SRS Community Reuse Organization.
  - EM-LA: Grants for the Santa Fe Indian School and four Accord Pueblos as part of the Los Alamos Pueblos Project.
- Community Engagement Cooperative Agreements related to:
  - Energy Communities Alliance.
  - EM Minority Serving Institutions Partnership Program (MSIPP).
  - Consortium for Risk Evaluation with Stakeholder Participation (CRESP).
  - Florida International University.
  - National Conference of State Legislatures (NCSL).

The DOE Office of Economic Impact and Diversity (ED) met the 2021 interim guidance Covered Program reporting requirements by submitting the benefits calculation methodology for each EM Covered Program to the Office of Management and Budget (OMB). In July 2021, DOE established the Justice40 Community of Practice, to address challenges and opportunities associated with EO 14008, Sec. 223, the Justice40 Initiative. The Justice40 Community of Practice, which meets monthly, involves approximately 50 participants

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who represent all DOE program offices and several support offices. The Community of Practice reflects the Department's commitment to the execution of the Justice40 Initiative and its full capacity to address EJ by delivering benefits to communities.

In December 2021, DOE delivered to OMB a methodology for calculating benefits accruing to disadvantaged communities for more than 60 Justice40 Covered Programs. This methodology included calculations of more than 160 metrics that the Department developed to measure Covered Program benefits accruing to disadvantaged communities. In 2022, EM created the [Justice40 Initiative](#) webpage.

DOE developed a unified, comprehensive definition of disadvantaged communities (DACs) in 2021 for determining where climate and energy benefits investments are, or are not, currently accruing, and for determining eligibility for future Justice40-related investments. The DOE working definition for DACs was developed by an internal and external collaborative research process. Balancing both data reliability and locally specific information, DOE selected census tracts for the spatial unit used to define a geographic community. In many locations, a census tract is akin to a neighborhood. In more rural locations, a census tract may comprise an entire county. DOE's working definition of disadvantaged is based on cumulative burden and includes data for 36 burden indicators collected at the census tract level.

With 2021 funds, the DOE Office of Energy, Efficiency, and Renewable Energy (EERE) developed and executed several multiyear programs specifically designed with — and around — the needs of vulnerable communities, which include low-income, tribal, rural and remote, and the DOE Justice40 Initiative definition of disadvantaged communities. Examples include the Inclusive Energy Innovation prize, the DOE Solar Energy Technologies Office Renewables Advancing Community Energy Resilience funding opportunity announcement, and the small business community-based topic.

## National Environmental Policy Act

The IAC NEPA committee serves as model for federal collaboration, focusing on the environmental and human health conditions in minority, low-income, American Indian and Alaska Native communities, with the goal of achieving EJ.

The NEPA committee aims to improve the consideration of EJ issues in the NEPA process by sharing best practices, lesson learned, research analysis, training, consultation, and other experiences of federal NEPA practitioners. 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 \(2019\)](#), disseminating valuable resources to assist in advancing EJ principles.

The NEPA committee undertook a multiyear, multi-agency effort to increase understanding and application of effective EJ and NEPA approaches. The committee considers EJ reviews through briefings and training sessions with federal agencies, such as DOE, EPA, U.S. Department of Transportation (DOT), U.S. Department of Agriculture (USDA), U.S. Department of the Interior (DOI), and others. The committee also provides training on effective engagement with the NEPA process for affected communities and stakeholders.

DOE follows site procedures to engage tribes on NEPA processes, such as early notice, informal briefings, and extended opportunities to participate in formal hearings. More than 8,000 tribal governments and

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tribal citizens are registered on a server that delivers information to the public regarding NNSA NEPA-related activities. The automated system serves by:

- Placing telephone calls to tribal leadership and their respective environmental authorities.
- Submitting copies of relevant documents to both contacts on the day of release.
- Following outreach by phone call to confirm receipt and to offer informal briefings and possible cross-agency participation.

DOE Idaho provided the Shoshone-Bannock Tribes with a list of NEPA activities early in 2021, and provided periodic status briefings throughout the year, including the [Final Versatile Test Reactor Environmental Impact Statement \(DOE/EIS-0542\)](#).

DOE Office of Nuclear Energy (NE) coordinated with other tribes (e.g., Confederated Tribes of the Umatilla Indian Reservation) on advanced reactors and the NEPA process, which will allow them the option to provide comments as part of the review cycle.

In FY 2021, [Southwestern Power Administration](#) (SWPA or Southwestern) published the continuation of the public power sales program and the integrated system rate schedules within the Federal Register and public notice/comment. Additionally, nine categorical exclusion determinations for construction were published for public comment.

SWPA's construction activities, and operation and maintenance (O&M) activities that may impact or have a disproportionately high adverse effect on populations of low-income, minority, American Indian Tribes and Alaska Natives, include replacement of power-line structures; new communication towers or extending the height of existing towers; Sulphur Hexafluoride (SF6) gas emissions; substation upgrades; and universal waste, including hazardous waste from substation facilities.

SWPA performs NEPA's seven mandates utilizing the implementing procedures of [Title 10 Code of Federal Regulations \(CFR\) Part 1021](#) requirements for rights-of-ways, facility and substation construction projects in Oklahoma, Arkansas, and Missouri.

Southwestern performs operations and management activities within the constraints of the Programmatic Environmental Assessment, Biological Evaluation, Biological Opinion, and Single-State Programmatic Agreements.

SWPA's EJ protection and tracking measures include the Tulsa and Gore, Oklahoma; Jonesboro, Arkansas; Nixa and Springfield, Missouri, offices universal waste disposal in compliance with EPA and DOE regulations. The universal waste is taken by signed manifest to the accurate landfill for waste type within EPA compliance measures.

Southwestern FY 2021 SF6 gas emissions have been reduced by 118.46 pounds from the baseline calendar year 2008. SF6 gas emissions are tracked as global goals, and data is uploaded to the DOE Sustainability Dashboard each fiscal year. Waste, waste diversion, and water are also tracked and recorded each fiscal year.

Current Spill Prevention, Control, and Countermeasure (SPCC) plans are provided for Southwestern substations that have oil capacities of 1,230 gallons or more and the substations and switching stations

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have emergency spill plans. Eight SPCC and emergency spill plans were updated for substations and switch stations.

SWPA's FY 2021 public participation for infrastructure projects, power sales program, and integrated system rate schedules include:

- During FY 2021, SWPA published the continuation of the public power sales program and the integrated system rate schedules within the Federal Register and public notice/comment. Additionally, nine [Categorical Exclusion Determinations](#) for construction were published for public comment.
- U.S. Fish and Wildlife Service (USFWS) review and comment on 11 infrastructure construction projects.
- EPA EJ review and comments on infrastructure construction projects.
- Sustainability reviews and tracking are performed on SWPA facilities and infrastructure and provided to the DOE Sustainability Dashboard for FY 2021.

DOE EERE, Fossil Energy and Carbon Management (FECM), NE, and SRS continue to analyze and consider potential EJ impacts when conducting environmental reviews.

The [EHSS publicly available webpage](#) contains brief descriptions of EO 12898, CEQ guidance on EJ. The webpage contains links to an EJ information brief prepared by EHSS' predecessor and DOE's EJ webpage under LM, the Strategy, and its second Five-Year Implementation Plan.

NNSA coordinated efforts (meetings and field visits) with area tribes and pueblos, and provided useful information and feedback that influenced the development of alternatives for the LANL Electrical Power Capacity Upgrade (EPCU) project.

SRS continued collaborating with EPA and the Tennessee Department of Environment and Conservation (TDEC) through the Federal Facility Agreement (FFA). The FFA establishes priorities for cleanup and annual enforceable schedule for addressing those cleanup priorities. EJ principles applied as part of these priorities ensure greater public participation and promote enforcement of all health and environmental statutes in areas with minority, low-income, and tribal populations.

Through cooperative agreements, LM continues to support native tribes in regard to disposal cells and former processing sites on tribal lands. The agreements provide support for programs to solicit reviews and input to documents that support monitoring, maintenance, and surveillance at LM sites as a part of the agreements. LM's Defense-Related Uranium Mines (DRUM) program established a cooperative agreement with the Navajo Nation Abandoned Mine Lands Reclamation (NNAML) program under the Department of Natural Resources.

LM continues to support the [Ten-Year Plan, Federal Actions to Address Uranium Contamination on the Navajo Nation](#). LM also interacts with other federal and Navajo Tribal agencies through Community Outreach Network meetings. This a helpful and useful tool for working together to accomplish the overall goal of informing and educating community members as a group with the same purpose. LM's DRUM program was incorporated into the Ten-Year Plan to identify the next steps in addressing the human health and environmental risks associated with the legacy of uranium mining and milling on the Navajo

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Nation. DOE initiated discussions with several EPA regional offices regarding the next campaign to verify and validate Abandoned Uranium Mines (AUMs) on tribal lands. DOE will develop specific inventorying and sampling methodologies with tribal Abandoned Mine Lands Reclamation (AML) programs and EPA. DRUM sites are primarily on Navajo Nation land (96%) and are unique when compared to mines on public land since tribal members may live on or near DRUM sites.

The [Western Area Power Administration](#) (WAPA) continues to update the [NEPA Desk Guide](#) with an FY 2022 completion goal.

## Partnership With Tribal Communities

To build up tribal communities and address EJ concerns, representatives for LM sites 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 systems to engage with American Indian and Alaska Natives, and others affected by native programs.

DOE is involved with cleaning up nuclear waste at nationwide sites and facilities. The waste, a result of nuclear weapons production, has affected sovereign tribal nations located near these facilities. Tribal nations have been adversely affected by different types of 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 the [State and Tribal Government Working Group](#) (STGWG) to support national meetings, including the biennial National Tribal Energy Summit. Hosted by DOE Office of Indian Energy Policy and Programs (IE) in coordination with NCSL, the event brings tribal leaders together with senior administration officials and representatives from federal agencies, state governments, private industry, utilities, and academia to exchange ideas and explore new and permanent solutions to our combined energy challenges.

WAPA is actively supporting a sustainability program that will work with the cultural resources program to evaluate rural or disadvantaged communities within WAPA's footprint. WAPA also worked closely with the Crow Nation to resolve rights-of-way, permitting, and potential utility development. Even during the COVID-19 pandemic, a 50-year, rights-of-way agreement was reached. The Desert Southwest Region continues to work with the Colorado River Indian Tribes on potential utility development. The WAPA Rocky Mountain Region worked closely with Paiute Tribes on all projects that have a low response rate.

## Indian Country Energy and Infrastructure Working Group (ICEIWG)

[ICEIWG](#), established May 2011, works collaboratively with IE to assist in surveys, analysis, and recommendations related to program and policy initiatives that fulfill the Title V of the Energy Policy Act of 2005 DOE statutory authorizations and requirements.

The working group brings 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 working group is hosted, managed, and supported as a program initiative in IE. It is also supported by NCSL through a cooperative agreement.

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## Goals and Objectives

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 IE's Strategic Roadmap — which ensures IE remains aligned with its congressional mandates and DOE goals, is tracking progress toward meeting its goals, and can be responsive to changing conditions in Indian Country and the nation — and addresses programmatic needs, activities, issues, and concerns at the working level through the following objectives:

- Surveying and assessing IE business and energy infrastructure development and needs.
- Exchanging information about energy development practices, needs, obstacles, and potential solutions, including alternative approaches to energy development in its various forms.
- Developing and disseminating information about tribal resources and opportunities to the public and prospective technology partners.
- Sharing information, transferring lessons learned, and forming and being informed about current policy, procedures, and industry partnership mechanisms. Discussing policy concerns is encouraged with recommendations or comments forwarded to the director of IE.

## ICEIWG Member Tribes

### Alaska

- [Alaska Federation of Natives](#) – Anchorage, Alaska.
- [Central Council of Tlingit & 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.

### California

- [Blue Lake Rancheria](#) – Blue Lake, California.
- [Ewiiapaayp Band of Kumeyaay Indians](#) – Alpine, California.
- [Yurok Tribe](#) – Klamath, California.

### Minnesota

- [Prairie Island Indian Community](#) – Welch, Minnesota.

### Mississippi

- [Mississippi Band of Choctaw Indians](#) – Philadelphia, Mississippi.

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## Montana

- [The Confederated Salish and Kootenai Tribes of the Flathead Nation](#) – Pablo, Montana.

## New York

- [Seneca Nation](#) – Salamanca, New York.

## North Dakota

- [Mandan, Hidatsa, and Arikara Nation](#) – New Town, North Dakota.

## Oklahoma

- [Cherokee Nation](#) – Tahlequah, Oklahoma.
- [Choctaw Nation of Oklahoma](#) – Durant, Oklahoma.
- [Osage Nation](#) – Pawhuska, Oklahoma.

ICEIWG meetings were held in January, June, and November of 2021.

## Nuclear Energy Tribal Working Group (NETWG)

NETWG is a DOE-chartered working group, focused on engaging tribal governments interested in the broad spectrum of NE activities.

NETWG explores such topics as nuclear research and development, small modular reactors, cultural resource impacts of NE activities related to nuclear energy production and distribution along with 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. NETWG serves as a conduit to foster communication, education for all ages, and promote active involvement of tribal governments. NETWG is dedicated to assisting in developing and maintaining the government-to-government relationship between DOE and Indian Tribes, consistent with DOE's American Indian and Alaska Natives Tribal Government Policy.

NETWG comprises the DOE Assistant Secretary for Nuclear Energy 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 expanded educational opportunities for all generations; management, 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.

The following tribes are active members of NETWG:

- [Confederated Tribes of the Umatilla Indian Reservation \(CTUIR\)](#) – Pendleton, Oregon.
- [Consolidated Group of Tribes and Organizations/Pahrump Paiute Tribe](#) – Pahrump, Nevada.

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- [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 provides a unique forum for its members to share tribal perspectives and discuss matters of mutual interest to tribes and NE. 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 of interest. NETWG meetings may include a tribal executive session with provisions for tribal representatives to meet separately or include other subject matter experts as appropriate. Meetings for 2021 were held in January, April, and September.

#### **Additional Resources**

- [NETWG Fact Sheet](#).
- [NETWG White Paper on Tribal Involvement in STEM](#).
- [NETWG White Paper on Consent-Based Siting and Indian Tribes](#).

#### **Site Programs and Cooperative Agreements**

In FY 2021, NNSA continued to fund a share of four cooperative agreements to implement the [Los Alamos Pueblos Project](#) (LAPP). NNSA hosted quarterly Accord Technical Exchange Meetings (ATEM), sharing information about upcoming NNSA, LANL, and EM projects. Also, 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 (FTWC) project, and the EPCU project.

Through cooperative agreements, LM continues to support native tribes and nations with disposal cells and former processing sites on tribal lands. These agreements provide support for programs to solicit reviews and input to documents that support monitoring, maintenance, and surveillance at LM sites as a part of the agreements. The DRUM program established a cooperative agreement with NNAML under the Department of Natural Resources.

In 2021, ED launched the [Energy Justice Dashboard \(BETA\)](#) to better understand how the Department's funding and investments are distributed to overburdened and underserved communities that have been left behind and unheard for too long. The dashboard is a publicly available, data visualization tool that displays DOE-specific investments in communities across the country that experience disproportionately

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high and adverse economic, human health, climate-related, environmental, and other cumulative impacts. The dashboard displays DOE cost data — grants, cooperative agreements, and contracts — from more than 25 DOE program offices for FY 2019 to present.

Coordinating with area tribes and Pueblos through meetings and field visits provided useful information and feedback that influenced development of alternatives for the LANL EPCU project.

EM is involved in the cleanup of nuclear waste at nationwide sites and facilities. Different types of waste and contamination resulting from the production of nuclear weapons has affected sovereign tribal nations located near these facilities, and their participation in the EM mission is critical.

EM actively supports [DOE Order 144.1, Department of Energy American Indian Tribal Government Interactions and Policy](#) and works directly with tribes on applicable cleanup decisions and site activities through cooperative agreements, agreements in principle, and MOUs. These agreements allow tribes to:

- Establish tribal environmental programs related to DOE sites and facilities.
- Hire tribal staff and scientific experts to inform tribal leaders on cleanup efforts.
- Examine cleanup plans at the sites.
- Hire tribal staff and scientific experts to inform tribal leaders on cleanup efforts.
- Provide comments on potential and know impacts of past, present, and future cleanup work on tribal lands.
- Preserve and protect tribal cultural resources (e.g., artifacts, fish and wildlife, native plants, and sacred sites).

Tribal environmental programs allow EM to benefit from tribal expertise by performing environmental protection activities such as monitoring water, soil and air; establishing transportation emergency response programs for tribes to be “first responders” for potential incidents on reservations and neighboring jurisdictions; conducting cultural resource surveys, wildlife monitoring projects, archaeological assessments, and native plant revegetation in conjunction with DOE cleanup projects; and promoting educational initiatives that enhance cross-cultural understanding and student ability in the fields of mathematics and science.

EM continued to fund tribal programs located near EM sites, including tribes and pueblos near Hanford, Washington (HAN); southeastern Idaho; Los Alamos, New Mexico; and the West Valley Demonstration Project in New York, to support tribal participation in DOE decision-making and signed a cooperative agreement and provided funds to the Santa Ynez Band of Chumash Indians around the Energy Technology and Engineering Center cleanup project in California.

EM provided \$300 thousand for the Shoshone-Bannock Tribes to start developing a long-term stewardship program and continued funding development of the Shoshone-Bannock Tribal soil and groundwater sampling efforts. Tribal personnel are conducting sampling on tribal lands and can observe sampling on the site. The goal is to turn more of these responsibilities over to the tribes as their capacities and capabilities increase.

EM Headquarters began issuing its 10-Year EM Strategic Vision. This document shares all projects, milestones, and goals for the next 10 years across the EM complex. OREM supplied information about

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its planned projects and milestones from 2021 to 2031, to include in the document. This document is shared with the public and stakeholders to get a better understanding of EM's path forward for the years ahead. EM will update the document annually to continually provide information for a 10-year window.

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

DOE's Oak Ridge Office of Environmental Management (OREM) in Tennessee continued to fulfill its annual commitment to release a report highlighting and describing annual environmental cleanup progress in 2021. This document, which is released every January, provides an overview of all cleanup projects that are underway or were recently completed across the Oak Ridge Reservation each year. The document gives readers a deeper understanding of how their tax dollars are spent and the priorities and upcoming environmental cleanup projects for the coming year.

### West Valley Demonstration Project

The Seneca Nation of Indians has interests and concerns regarding the [West Valley Demonstration Project](#). Like 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. Through a cooperative agreement, tribal staff are frequently engaged with DOE and its contractors. Tribes review and comment on plans and documents, participate in meetings at the request of DOE, 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 through the Seneca Nation to and from the West Valley Demonstration Project. The Seneca coordinate with West Valley to ensure compliance with established transportation notification protocols.

### Los Alamos Pueblos Project

LAPP, composed of four New Mexico Pueblo governments (Santa Clara Pueblo, Pueblo of Cochiti, Pueblo of Jemez, and Pueblo de San Ildefonso), has individual cooperative agreements to develop and maintain environmental monitoring programs. LAPP is funded by EM and NNSA Defense Programs. Funds vary from one Pueblo to another. EM also funds the Santa Fe Indian School (SFIS), which is owned and operated by the 19 Pueblos of New Mexico, to work with LAPP Pueblos.

Agreement provisions allow LAPP tribal personnel to obtain the necessary training to monitor and sample soil, air, groundwater, and other media. Sampling is performed at the Pueblo level and jointly with LANL. The agreements allow for the formation of Pueblo-structured environmental programs that ensure DOE operations are not impacting Pueblo lands, and to the extent there are impacts, allow for continued monitoring of contaminated sites. The Pueblos utilize SFIS to assist in monitoring activities and collaborate with LANL on issues of mutual interest. Currently, LAPP personnel are actively participating — at the request of DOE, NNSA, and LANL — in reviewing and commenting on the LANL Site-wide Environmental Impact Statement.

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## Waste Isolation Pilot Plant (WIPP)

The DOE [Carlsbad Field Office](#) in New Mexico funds several tribes and Pueblos along WIPP transportation corridors. The funds are for first responder training and support. The following Tribes and Pueblos are involved with WIPP transportation corridors:

- [Acoma Pueblo](#)
- [Laguna Pueblo](#)
- [Nambe Pueblo](#)
- [Shoshone-Bannock Tribes](#)
- [Navajo Nation](#)
- [Confederated Tribes of the Umatilla Indian Reservation](#)
- [Pojoaque Pueblo](#)
- [San Ildefonso Pueblo](#)

DOE awarded/extended six cooperative grants to Native American tribal governments for *Catalog of Federal Domestic Assistance* number 81.106, “Transportation of Transuranic Wastes to the Waste Isolation Pilot Plant: States and Tribal Concerns, Proposed Solutions” in the amount of \$281 thousand.

## State and Tribal Government Working Group (STGWG)

Five decades of nuclear weapons research and production, spanning the Manhattan Project to the Cold War, have left behind a significant environmental legacy in the United States: one of the largest environmental cleanups in the world.

Cleanup is a present endeavor 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 convenor for [STGWG](#) and provides a team of policy experts to support STGWG through a cooperative agreement with EM.

In recent years, STGWG has focused on three priority issue areas — long-term stewardship (LTS), Natural Resource Damage Assessment and Restoration, and tribal concerns. Given the unique composition of STGWG’s membership, these priority areas are of particular interest and relevance to states and tribes. These priorities also provide the opportunity for members to come together to share information and hold focused dialogues with DOE.

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

EM has primary responsibility for this cleanup work, which initially was spread across [107 sites](#). To date, 91 of those sites have been cleaned up, but the remaining sites represent some of the most challenging work. While this history is of national importance, the ongoing cleanup and environmental legacy have direct impacts on the states and Native American and Alaska Native tribes associated with these DOE sites.

STGWG convenes representatives from states and Native American tribes that host or are otherwise affected by DOE sites or facilities associated with production and cleanup of the nuclear weapons complex. Since its

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inception in 1989, STGWG and DOE senior leadership have convened meetings and promoted information-sharing among states, tribes, and DOE offices to foster relationships and improve communication. These ongoing interactions have resulted in an improved understanding of cleanup priorities.

DOE provides funding for a single representative from each affected state and tribe to participate in STGWG meetings, as well as funding technical, administrative, and facilitation support. The Department is funding STGWG support and participation through a cooperative agreement with NCSL.

EM supported the following STGWG meetings, which were held virtually due to COVID-19:

- STGWG Fall Meeting (Nov. 17, 2021).
- Climate Mitigation (Sept. 28, 2021).
- LM/NNSA LTS Session (June 23, 2021).
- EM/STGWG Leadership Meeting (June 22, 2021).
- LM LTS Session (Feb. 2, 2021).

STGWG is also a member of DOE's Tribal STEM Subcommittee.

EM met with STGWG regarding the Presidential Memorandum for Tribal Consultation and Strengthening Nation-to-Nation Relationships, gathering input and describing DOE processes.

### Current STGWG Membership

#### States

- Colorado
- Idaho
- Kentucky
- Missouri
- Nevada
- New Mexico
- New York
- Ohio
- Oregon
- South Carolina
- Tennessee
- Texas
- Washington
- Cochiti Pueblo

#### Native American Tribes

- Confederated Tribes of the Umatilla Indian Reservation

#### Consolidated Groups of Tribes and Organizations

- Jemez Pueblo
- Nez Perce Tribe
- San Ildefonso Pueblo
- Santa Clara Pueblo
- Santa Ynez Band of Chumash Indians
- Seneca Nation of Indians
- Shoshone-Bannock Tribes
- Wanapum Tribe
- Yakama Nation

STGWG members meet semiannually with EM leadership to receive EM programmatic updates, address cleanup concerns, and ensure that DOE facilities and sites are operated and cleaned up in compliance with all applicable federal and state laws and regulations and protect tribal rights and interests.

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## Ten-Year Plan: Federal Actions to Address Impacts of Uranium Contamination on the Navajo Nation

The federal government continues to address the legacy of uranium contamination on the Navajo Nation. The [Ten-Year Plan](#) (2020-2029) builds on the work of the two previous Five-Year Plans (2008-2012 and 2014-2018), including the Tronox Addendum (addresses impacts of uranium contamination from Tronox Navajo Area Uranium Mines) to the 2014-2018 Five-Year Plan. The Ten-Year Plan is adjusted based on information gained during the previous Five-Year Plans, and identifies the next steps in addressing human health and environmental risks associated with the legacy of uranium mining on the Navajo Nation.

The Navajo Nation is actively engaged in all aspects of this work, and the accomplishments would not be possible without the involvement of the Navajo Nation Office of the President and Vice President, Navajo Nation Council, Navajo Nation Environmental Protection Agency (NN EPA), Navajo Abandoned Mine Lands Reclamation (AML)/Uranium Mill Tailings Remedial Action (UMTRA) Department, Navajo Nation Department of Health (NNDOH), Navajo Department of Justice, Chapter officials, community members, and other organizations.

The following federal partners will work with the Navajo Nation to implement this plan:

- Environmental Protection Agency (EPA).
- DOE.
- NRC.
- DOI Bureau of Indian Affairs (BIA).
- Navajo Area Indian Health Service.
- Agency for Toxic Substances and Disease Registry.

While the past 10 years represent a significant start in addressing the legacy of uranium mining and milling on the Navajo Nation, much more work remains.

LM continues to support the Ten-Year Plan. The Office also interacts with other federal and Navajo agencies through Community Outreach Network meetings. These meetings bring agencies together to accomplish the overall goal to inform and educate community members as a group with the same purpose.

LM's DRUM program is the newest Ten-Year Plan team member. This program's team brings expertise on abandoned uranium mines. As part of the 10-Year Plan team, the DRUM team will continue verification and validation activities, as well as safeguard hazardous mine openings for approximately 293 abandoned uranium mine sites located on the Navajo Nation.

DOE initiated discussions with several EPA regional offices regarding the next campaign to verify and validate AUMs on tribal lands. DOE will develop specific inventorying and sampling methodologies with tribal AML programs and EPA. DRUM sites are primarily on Navajo Nation land (96%) and are unique when compared to mines on public land, since tribal members may live on or near DRUM sites.

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## Tribal Intergovernmental Relations Group (TIGR)

This past year, LM and the Navajo AML/UMTRA Moab, Utah, project were looking for innovative ways to stay connected to community members and identify projects to benefit all entities. With new faces and new outreach needs on the Navajo Nation, LM and AML/UMTRA successfully re-engaged TIGR, which hadn't met since 2019.

In 2017, LM set out to build a federal and tribal collaborative outreach effort on the Navajo Nation between DOE, AML/UMTRA, and the Hopi Tribe. TIGR was formed and was initially composed of an LM public participation specialist, LM site managers, LM Strategic Partner contractor staff, Navajo AML/UMTRA staff, and representatives from the Hopi Tribe Department of Natural Resources.

Group members focused on coordinating participation in community outreach activities and information and STEM opportunities. The group discussed and provided input for LM-developed materials and joined LM and contractor staff outreach events, such as Navajo Nation fairs. Around 2019, changes in LM and AML leadership affected the ability to hold regular group meetings, and the group slowly stopped meeting altogether. Upon reconvening, LM built a stronger team and approach to outreach on the Navajo Nation, only to be slowed down by the COVID-19 pandemic.

"The group is necessary to discuss issues outside the scheduled quarterly and technical exchange meetings," said Norman Honie, Jr. with the Hopi Tribe Department of Natural Resources, and an original group member. "Members can discuss topics other than scientific issues. This form of communication is very important if federal projects are to succeed in Indian Country when federal officials hear tribal stakeholders' concerns."

To round out the TIGR committee, LM added a member from NRC and has extended invitations to NN EPA and the U.S. Army Corps of Engineers.

The TIGR team meets virtually on the second Wednesday of each month.

## Community Outreach Network

The Navajo Nation is the largest Native American reservation in the United States, comprising around 27,000 square miles across Arizona, southeastern Utah, and northwestern New Mexico. During the 1950s, and the rush to build nuclear weapons in the United States, there were 4 million tons of uranium ore extracted from the Navajo Nation under leases with the tribal government. When mining ceased around 1986, more than 500 mine sites had been abandoned.

While reclamation and remediation began at some of the mine sites, many went untouched, with limited outreach and interaction from the federal government to the residents in and around the communities where the open mine sites remained.

In 2007, the U.S. House Committee on Oversight and Government Reform requested that federal agencies write a plan to coordinate in addressing uranium-related issues within the Navajo Nation. The original agencies were the EPA, BIA, NRC, DOE, Indian Health Service, and Agency for Toxic Substances and Disease Registry, in consultation with the Navajo Nation and Hopi Tribe.

The original document was called the Five-Year Plan. The plan outlined the initial collaborative work among the agencies from 2008-2014, and the second Five-Year Plan highlighted the accomplishments from the

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previous plan and built on additional initiatives from 2014 to 2018. In 2021, the Ten-Year Plan to advance and expand the work of the previous Five-Year Plans was finalized.

“ *Our goal is to share information about contamination, exposure, and prevention directly with Chapter residents. We committed to delivering the pilot workshop in Navajo Chapter Houses in both English and Navajo languages. We also worked hard to ensure the content was presented in plain language and to invite Navajo families from within the Chapter to participate. We had great participation from multiple federal and Navajo agencies and from the communities themselves. Agencies delivered the workshop, responded to community questions, and interacted with Navajo families at booths before and after the presentation. Navajo community members had an opportunity to build their knowledge of uranium, share local information, and get responses to a variety of questions and concerns all in one place.* ”

—Jamie Rayman, Agency for Toxic Substances and Disease Registry

The focus of all the plans has been to support community outreach and information sharing among federal agencies and, more importantly, to community members.

In 2016, LM helped form the Community Outreach Network, which was tasked with pulling together the multi-agency effort through community outreach, joint agency and tribal planning, and information sharing. Participating members of the group are referred to as “the network.”

LM also hired a network coordinator to identify, attend, and represent the network at various tribal events where information and resources about the federal agencies’ collaborative efforts and services are shared with community members. The coordinator also organizes a monthly conference call among the network to share agency outreach updates.

Over the years, network membership has grown, and outreach efforts have expanded. Prior to the COVID-19 pandemic, the Community Outreach Network coordinator, along with network members, provided information to community members at annual Navajo Nation fairs, the Monument Valley Marathon, and small community events, such as Cameron Days just outside of Cameron, Arizona. The network has also created and presented an information program titled “Uranium 101,” which is shared by invitation from NN Chapter Houses to their membership and covers topics like the effects of uranium exposure on humans and livestock.

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As work continues under the Ten-Year Plan, the Community Outreach Network will continue to collaborate to increase outreach efforts to reach more community members that are interested in learning more about uranium-related issues on the Navajo Nation.

### **Tribal Radioactive Materials Transportation Committee (TRMTC)**

TRMTC is composed of representatives from 20 Native American Tribes. The committee offers a unique perspective regarding issues surrounding transportation and storage of radioactive materials and spent nuclear fuel and engages tribal governments interested in or impacted by these activities.

TRMTC focus areas include but are not limited to:

- Transportation planning, routing, and storage of radioactive materials and spent nuclear fuel.
- Emergency management response and preparedness training.
- Cultural and natural resources.
- Public health, safety, and community education.

TRMTC held its midyear meeting virtually in January 2021 and its annual meeting in June 2021. Both meetings brought together TRMTC members with EM, NE, and NRC. Representatives from state regional groups also presented at these meetings.

In 2021, TRMTC members participated in several web-based meetings of the DOE National Transportation Stakeholders Forum's Spent Nuclear Fuel Rail/Routing Ad Hoc Working Group (Rail/Routing AHWG). The Rail/Routing AHWG comprises representatives from DOE, tribes, states, and the Department of Transportation (DOT) – Federal Railroad Administration (FRA). The working group was formed in 2015 to address questions and areas of concern surrounding an anticipated rail-based transport system for future large-scale DOE shipments of commercial spent nuclear fuel. Over the years, the working group has addressed questions about general railroad operations, safety records, regulations, inspections, and route identification processes. The Rail/Routing AHWG continues to focus on developing a draft DOE Railcar Safety Inspection Protocol, which is intended to provide a mechanism for DOE to share otherwise confidential railcar safety inspection reports with tribes and states along a DOE spent nuclear fuel shipment. The working group is co-chaired by TRMTC and FRA representatives.

NE worked with members of the TRMTC Executive Committee to develop and issue a Request for Information (RFI) to identify potential entities to compete for a new five-year cooperative agreement to provide staff support for TRMTC's operations, including meeting planning, travel arrangements, supporting TRMTC's role in DOE's National Transportation Stakeholders Forum, among others. This task involved coordinating with EM to merge NE and EM cooperative agreements with TRMTC into one complete agreement with a common work scope. TRMTC Executive Committee members helped review responses to the RFI and provided NE and EM staff with their feedback. The award was completed in 2021 and the new cooperative agreement began in October 2021.

### **Tribal Affairs Meetings and Historic Preservation**

The Office coordinated the collection of DOE site data on cultural resources requested by DOI and DOE Federal Preservation Officer.

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HAN holds a monthly cultural resources meeting with area tribes, and a quarterly tribal affairs meeting. At the cultural resources meeting, DOE discusses projects and associated protections to traditional cultural and other properties of significance to the tribes. DOE tracks how well commitments are being met (which are typically memorialized in Cultural Resource Reviews and reports, Memoranda of Agreement, or in a Cultural Resource Management Plan) and develops protection measures for planned projects. When tribes raise concerns about cleanup, DOE has discussions and can reconsider its plans or decisions. At the tribal affairs meeting, HAN discusses tribal cooperative agreements and other (non-cultural resources) issues of interest to the tribes, such as cleanup and restoration activities and LTS of HAN. Through tribal consultation, a HAN Site Implementation Plan has been developed for DOE Order 144.1, *DOE's American Indian Tribal Government Interactions and Policy*.

DOE HAN is also involved in government-to-government discussions regarding public access to the Rattlesnake Mountain Unit of the Hanford Reach National Monument, which is managed by USFWS. Rattlesnake Mountain is an important traditional cultural property and sacred site. While the USFWS is the lead federal agency, discussions include the tribes, DOE (as the landowner), the Advisory Council on Historic Preservation, and the Washington Department of Archaeology and Historic Preservation. For 25 years, DOE has supported tribes and the Columbia River Intertribal Fisheries Commission with a juvenile salmon tagging operation.

## Historical Collections

LM maintains historical objects collections at the [Weldon Spring Site Interpretive Center](#) in St. Charles, Missouri; the Fernald Preserve Visitors Center in Hamilton, Ohio; and the Atomic Legacy Cabin (ALC) in Grand Junction, Colorado. More than 1,000 objects have already been inventoried at the Fernald Preserve and the ALC alone.

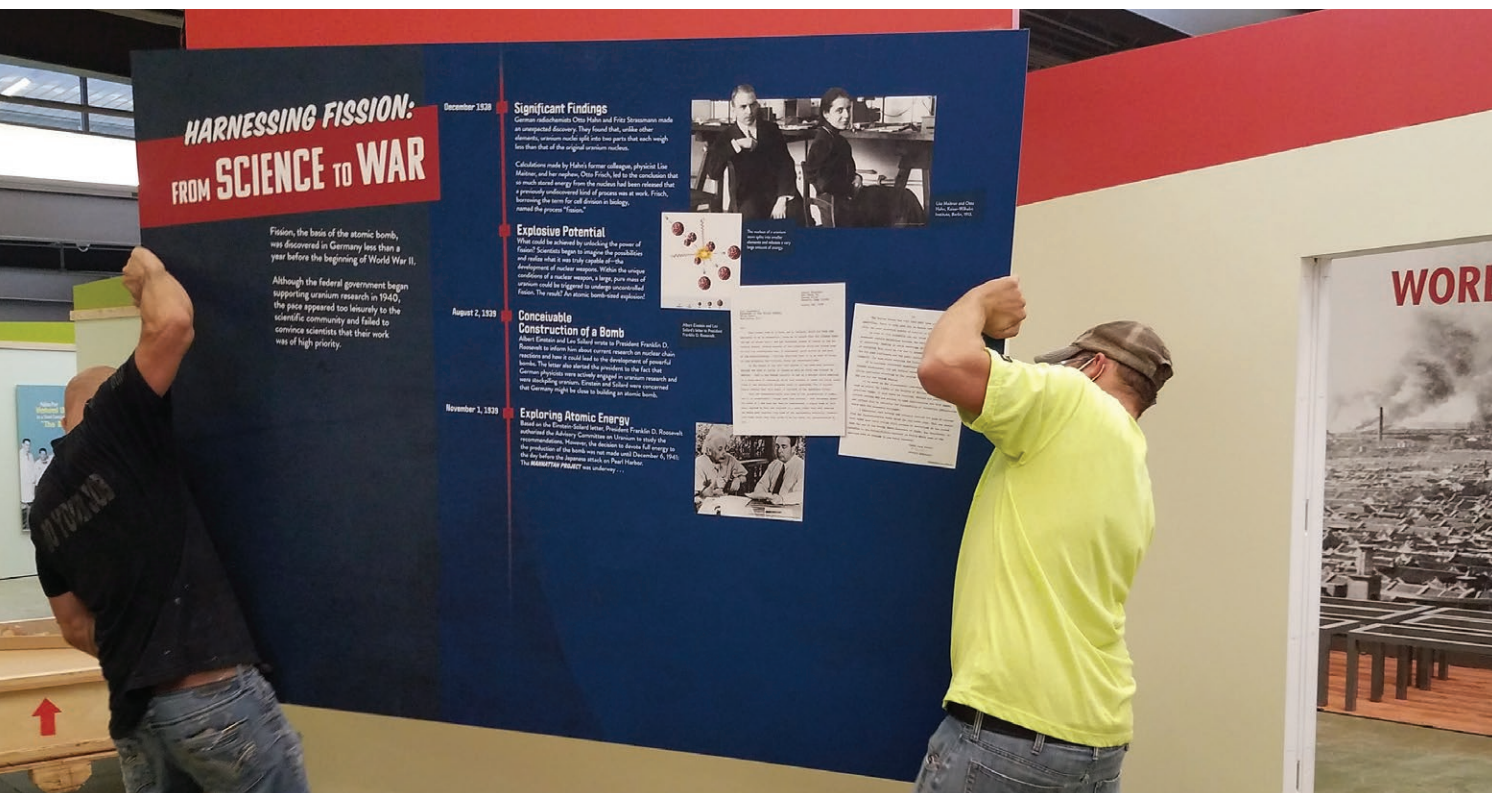
The collections include items and materials that contributed to former Manhattan Project and Cold War-era production, as well as objects related to cleanup and LTS. Many of them are on display in exhibit halls and used in educational programming.

Most of the collections consist of photographs and documents, Geiger counters, lab equipment, and geological samples. The new enterprise-wide program follows standards outlined by the American Alliance of Museums Code of Ethics for Museums and includes a museum database for cataloging the collection. Moving forward, LM will conduct a comprehensive inventory of all objects at the three interpretive centers. This will create documentation standards for museum collections, provide storage guidelines, and give interpretive center staff standard processes to manage all site collections. Implementing this program allows LM to protect sites' museum collections from damage so they may be used to interpret the sites' histories. In addition to protecting the physical integrity of the objects, each site will have a better understanding of the museum collections they have so they may be used for research or educational programming. Each site has a unique history, and the museum collections are physical representations of that history.

LM has moved forward with the newly constructed Weldon Spring Site Interpretive Center and Office Complex in St. Charles County, Missouri.

“It's important we protect these objects so this portion of our nation's history will be preserved for many years to come.”

Taylor Whelan, LMSP Museum Collections Specialist



*Installation of Informative Panels at Weldon Spring Site Interpretive Center*

Exactly five years to the day after the initial kickoff meeting to plan the new facility, the first truckload of exhibits arrived for installation. The 4,500-square foot exhibit hall with adjoining classrooms and auditorium offers guests the opportunity to immerse themselves in the Weldon Spring Site's story. From World War II to the Cold War and beyond, the exhibit hall tells the story of service at the site through historical objects, photos and video, and interactive features.

Most importantly, the exhibit hall provides the local community with valuable information about the site's cleanup and its LTS under LM. "Completion of the installation of the new exhibit hall is another step in the process of readying the new Weldon Spring Site Interpretive Center and Office Complex for eventual use by the community and visits from the public" said LM Site Manager Rebecca Roberts.

“ Completion of the installation of the new exhibit hall is another step in the process of readying the new Weldon Spring Site Interpretive Center and Office Complex for eventual use by the community and visits from the public. ”  
LM Site Manager Rebecca Roberts

### **Manhattan Project National Historical Park (MAPR)**

LANL, the DOE NNSA Los Alamos Field Office (NA-LA), and the National Park Service (NPS) work together to preserve and share the nationally significant historic sites, stories, and legacies associated with the Manhattan Project. Ensuring that these historic sites remain intact to tell the story of this world-changing event is a crucial component of this collaborative effort.

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Many Los Alamos sites constructed during the Manhattan Project were not designed to withstand the test of time. Researchers and military personnel hurriedly built structures for specific purposes in the race to prevail during World War II. Since the end of the war, 75 years ago, some of these sites sat unused — exposed to the harsh northern New Mexico environment.

The [MAPR](#) team has identified several sites that need attention, and they work continuously to maintain, restore, and protect these Manhattan Project sites. Most recently, the Concrete Bowl and the Gun Site on LANL property, underwent preservation work. These sites share different stories from the early years of the laboratory.

These sites tell LANL's history of solving difficult scientific and technological challenges, as well as the story of a collective effort to achieve a common goal. The Manhattan Project was an immense project that created new fields of science and helped shape the world we live in today.

NPS, NNSA, and LANL work together to protect these sites for future generations. In the spirit of its namesake, care for MAPR comes from numerous divisions and groups across LANL. The historical park team is not finished. They have already begun preservation work in another important Manhattan Project historic location, the V-Site, also on LANL property.

## Los Alamos Pueblos' Project

DOE awarded a cooperative agreement to the Santa Clara Pueblo of Espanola, New Mexico, for LAPP activities and National Resource Damage Assessment Trustee Council participation for Santa Clara Pueblo.

The objective of the project is to conduct a broad assessment of environmental, ecological, and human health conditions on the Santa Clara Indian Reservation, to identify issues of concern, and then determine the extent that those issues will impact and compromise how the Pueblo community engages in its traditional use of community natural resources. The cooperative agreement has a value of \$2.785 million, with a five-year period of performance.

In FY 2021, NNSA continued to fund a share of four cooperative agreements to implement LAPP. NNSA hosted quarterly ATEMs, sharing information about upcoming NNSA, LANL, and EM projects. In addition, in compliance with DOE 144.1, NNSA engaged tribes on several projects, including the FTWC project.

## Tribal Emergency Management

DOE involves minority and low-income communities in emergency planning, training, and potential cross-agency support. Representative from New Mexico's Rio Arriba, Sandoval, and Santa Fe Counties, including Pueblo governments in those counties, were invited to plan two LANL emergency drills to assure authenticity.

In FY 2021, LANL and NNSA hosted an EOC and interagency wildland fire tour for the four accord Pueblo representatives and discussed Pueblo inclusion on emergency communications and response strategy. In addition, for the third consecutive season, NNSA and LANL offered approximately 400 cords of firewood (from dead or down timber harvested to mitigate wildfire risks on LANL property) to accord Pueblo members for use during winter months.

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## Tribal Energy Program Managed by the DOE Office of Indian Energy Policy and Programs

DOE, through its [Office of Indian Energy Policy and Programs](#), funds a wide variety of conventional and renewable energy, and energy-efficiency projects to assist tribes in realizing their energy visions. IE is authorized to fund and implement a variety of programmatic activities that assist the American Indian lands and Alaska Native villages with energy development, capacity building, energy cost reduction, and electrification of Indian lands and homes.

To advance its mission, IE works with American Indians and Alaska Natives to maximize the value of their energy resources by facilitating energy development, education, training, and technical assistance funding. IE also develops public-private partnerships and inter- and intra-governmental coordination and partnerships to maximize the return on investments in the future of American Indian and Alaska Native communities.

To equip tribes with the data needed to understand their energy options, IE funded development of the Tribal Energy Atlas — a first-of-its-kind interactive geospatial application that enables tribes to conduct their own analyses of installed energy projects and resource potential to tribal lands. Developed by researchers from DOE's National Renewable Energy Laboratory (NREL) for IE, it is the most robust tool ever designed to assist tribal energy project planners, technicians, and investors with analyzing energy options in Indian Country.

The latest energy resource data was used to populate the Tribal Energy Atlas, along with other relevant information on infrastructure (conventional and renewable energy facilities, transmission lines, railroads), environment (water availability, protected areas), energy efficiency, electricity, natural gas prices, and more. The data is not limited to renewable energy as it also includes natural gas, petroleum, and other conventional energy sources.

Between 2010 and 2021, IE invested over \$114 million in more than 200 tribal energy projects across the contiguous 48 states and Alaska. The projects are valued at over \$185 million.

Specifically, in July 2021, IE announced an additional \$12 million in energy project funding for 13 American Indian and Alaska Native communities across the nation. Those energy projects are estimated to result in 3.5 megawatts of clean energy generation and over 3.5 megawatt-hours of battery storage, serving more than 1,300 tribal buildings and saving communities a combined \$1.8 million annually.

Further, in FY 2021, IE has also provided cost-share reductions valued at \$15 million to 27 tribes and tribal entities to provide financial relief to native communities struggling with COVID-19.

## Uranium Mill Tailings Remedial Action (UMTRA)

DOE continues to support the Navajo Nation [UMTRA](#) program through a cooperative agreement that helps support independent inspections of the four LM sites on the Navajo Nation (Monument Valley, Arizona, Processing Site and three disposal cells at Mexican Hat, Utah; Shiprock, New Mexico; and Tuba City, Arizona). LM will continue to work on the Navajo Nation Ten-Year Plan with participants who are part of the Community Outreach Network. Working with other federal and Navajo agencies is essential in order to accomplish the overall goal of informing and educating community members as a group with the same purpose.

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## Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund)

One of DOE's initiatives includes working with EPA to collaborate on [CERCLA](#) activities in Tennessee. The Superfund site is near a community, and it is also on the National Priorities List. DOE is the lead agency responsible for implementing cleanup of the site. EPA and the Tennessee Department of Environment and Conservation (TDEC) oversee DOE activities, pursuant to FFA, which establishes priorities for cleanup and an annual enforceable schedule for addressing those cleanup priorities. EJ principles applied, as part of these priorities, ensured greater public participation and promoted enforcement of all health and environmental statutes in areas with minority population and low-income populations, American Indian Tribes, and Alaska Natives.

### Federal Partners:

- U.S. Army Corps of Engineers.
- Department of the Army.
- Centers for Disease Control and Prevention.
- U.S. Department of Health and Human Services.
- Corporation for National and Community Service.
- U.S. Department of Agriculture.
- U.S. Department of Education.
- DOE Office of Energy Efficiency and Renewable Energy.
- U.S. Department of Housing and Urban Development.
- U.S. Department of the Interior.
- U.S. Department of Transportation.
- U.S. Economic Development Administration.
- U.S. Department of Commerce.
- U.S. Environmental Protection Agency .
- Federal Emergency Management Agency.
- U.S. Department of Homeland Security.
- National Institute of Environmental Health Sciences.
- U.S. Department of Health and Human Services.
- National Oceanic and Atmospheric Administration.

DOE, EPA, and the state of Washington Department of Ecology signed the comprehensive cleanup and compliance Hanford Federal Facility Agreement and Consent Order, or Tri-Party Agreement (TPA), on May 15, 1989. The TPA is designed to comply with CERCLA remedial action provisions and with the

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Resource Conservation and Recovery Act (RCRA) treatment, storage, and disposal unit regulations and corrective action provisions. More specifically, the TPA 1) defines and ranks CERCLA and RCRA cleanup commitments, 2) establishes responsibilities, 3) provides a basis for budgeting, and 4) reflects a concerted goal to achieve full regulatory compliance and remediation, with enforceable milestones, in an aggressive manner.

The TPA is a legally binding accord consisting of two main documents.

The “Legal Agreement” itself, which describes the roles, responsibilities, and authority of the three agencies, or “parties,” in the cleanup, compliance, and permitting processes. It also sets up dispute resolution processes and describes how the agreement will be enforced.

The “Action Plan” implements cleanup and permitting efforts, which includes milestones for initiating and completing specific work and procedures the three agencies will follow.

Additionally, an associated plan called the “Public Involvement Plan” (PIP), describes how the public will be informed and involved throughout the cleanup process.

### **Technical Support and Resources Regarding Sustainability and Energy Efficiency**

DOE provides technical support and resources regarding sustainability, energy efficiency, renewable energy, and weatherization to the [Morgan Community Mile \(MCM\)](#). One of this initiative’s goals is to engage with community residents and officials to use knowledge derived from faculty and student research, the sharing of mutually beneficial resources, and the appropriate and timely dispatch of university experts and professionals to collaborate in addressing community concerns. The initiative is a collaboration by partners and stakeholders from federal agencies, private industry, community organizations, Coppin State University, and local and state governments.

MCM’s goal is to partner with Northeast Baltimore, Maryland, neighborhoods and private, public, and nonprofit sectors to utilize the university’s research and knowledge for the betterment of both partners. This initiative fully engages community stakeholders, university students, faculty, and staff in an inclusive, democratic, and participatory process that results in mutually defined community plans, projects, measurable outcomes, and positive community impact.

Technical support continues as needed. However, no requests were received in 2021.

### **Small, Disadvantaged, and Minority Businesses**

The Department implements community outreach requirements under a revised LANL management and operating contract, including provisions for technical assistance, educational outreach, regional purchasing, economic development, small and disadvantaged purchasing programs, diversity, and advance notice of transportation and detonation schedules. The laboratory continues to exceed annual targets for purchases from small, disadvantaged, and minority businesses.

EM officials met with tribal-owned businesses and Alaska Native corporations to discuss how they can support the cleanup program during the 2021 Reservation Economic Summit. Discussions included subcontracting to enhance opportunities for small businesses and the importance of pre-solicitation and pre-proposal conferences as key networking avenues.

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## Federal Facility Agreement (FFA)

DOE collaborates with EPA and the Tennessee Department of Environment and Conservation. The Oak Ridge Reservation implemented the [FFA](#) on Jan. 1, 1992. It is a CERCLA-required agreement to promote cooperation and participation to clean and remediate the Oak Ridge Reservation. The FFA establishes priorities for cleanup and annual enforceable schedule for addressing those cleanup priorities.

The FFA and Consent Order TPA support achieving compliance with CERCLA. DOE management remained focused on assuring public input was solicited and incorporated into changes that were proposed or made. Assessments were conducted to assure that the views and values of tribal nation representatives, minority populations, and low-income populations, American Indian Tribes, and Alaska Natives were incorporated into the HAN site's decision-making processes. [HAN's public involvement commitments](#) are set forth in the PIP (formerly the Community Relations Plan. Highlights of public involvement activities in 2021 include:

- HAN held 11 public comments periods.
- HAN hosted 11 public meetings.
- The Tri-Party agencies (DOE, EPA, and Ecology) issue a [Public Involvement Calendar](#), and maintain a Hanford email list.

DOE supports five [Public Information Repositories](#) (PIR) (Richland [2], Seattle, and Spokane, Washington, and Portland, Oregon) to provide public access to information on TPA activities. Documents are available for public review and comments. PIRs also provide computers and assistance for the public to electronically access information in the [Administrative Records](#) (AR). Events calendars provide lists of upcoming public activities including documents out for public review.

The [Hanford Public Involvement Opportunities](#) webpage provides a list of current public involvement activities and documents available for public review. PIRs provide public access to [www.hanford.gov](http://www.hanford.gov) and the AR/PIR website, which houses HAN site AR files.

The [Hanford Speakers Bureau](#) regional outreach program sponsored 19 presentations to community organizations, civic service groups, and schools. Speakers presented to several schools and groups in higher minority population communities in Washington, including Pasco, Othello, and Sunnyside. Due to COVID-19, every briefing except the one in Sunnyside had to be given virtually, and several other presentations were canceled. With COVID-19 case rates stabilizing, it is expected that speakers bureau requests will pick up again to pre-COVID levels for the 2022-2023 school year.

The SRS and OREM continued collaborating with EPA and the Tennessee Department of Environment and Conservation through the FFA. The FFA establishes cleanup priorities and annual enforceable schedules for addressing those priorities. EJ principles applied as part of these priorities ensure greater public participation and promote enforcement of all health and environmental statutes in areas with minority, low-income, and tribal populations.

## Urban Waters Federal Partnership (Partnership)

This [Partnership](#) reconnects urban communities — particularly those that are overburdened or economically distressed — with their waterways by improving partnership among federal agencies and collaborating with community-led revitalization efforts to improve our nation's water systems and promote their

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economic, environmental, and social benefits. The Partnership breaks down federal program silos to promote more efficient and effective use of federal resources by improved coordination and targeting federal investments. (DOE is a partner, but no activities are directly indicated as being DOE's.)

In many overburdened or underserved urban areas, every resource counts. Clean water is the one resource that is often taken for granted but is also most vital. Each of us relies on clean water every day from the water we drink, shower, and swim in, to the water we use to feed our crops. But its value is larger than that. Clean water helps communities thrive, playing a key role in helping grow local businesses, and enhancing educational, recreational, and social opportunities in the areas through which it passes. Urban communities know this, and across the country, local groups are working to restore their water resources and reconnect their communities to them. The [Urban Waters Federal Partnership](#) is committed to supporting these communities by helping them reclaim the water resources that are vital to their success.

EERE and Partnership missions are strategically aligned based on the following goals:

- Develop approaches that can accelerate economic growth and job creation while improving the environment by reducing greenhouse gas emissions and improving air and water quality.
- Ensure diversity and choice in the way energy services are produced.
- Provide American businesses and households with affordable energy services by creating low-cost renewable supplies and energy-efficient products and systems.
- Insulate the U.S. economy from the price and supply uncertainties associated with petroleum.
- Work with a diverse set of partners, helping communities restore and protect water quality and revitalize adjacent rural, suburban, and urban neighborhoods throughout the watershed.

Through this partnership program, communities gain economic, environmental, and social benefits, and collaborate with federal, state, and local agencies, as well as community-led efforts, to achieve common goals.

## VI. COMMUNITY ENGAGEMENT ACTIVITIES AND RESULTS IMPACTS

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. The Department includes the following community engagement activities:

### [Community Leaders Institute \(CLI\) and Technical Assistance Workshops \(TAWs\)](#)

A critical factor in the success of community development programs is a well-informed community. Action occurs when those with authority take on an informed and active leadership role. The purpose of the CLI is to help those leaders know how to access and obtain the information necessary for making good decisions and communicating that information to citizens. The CLI's focus is on the unique relationship



*Panel from the 2020 Community Leaders Institute (no CLI held in 2021 due to COVID-19)*

between environmental protection, human health, EJ, and economic development. This CLI's sessions focused on 1) The Role of Federal, State, and Local Governments, 2) Youth Issues and Challenges, 3) Economic Development, Housing, Transportation, and Community Development, and 4) Health Disparities/Health Issues.

The CLI was not held in 2021 due to the COVID-19 pandemic but is scheduled to return in 2022.

The TAW emphasizes essential how-to skills needed for preparing and managing a good grant application. The TAW is a classroom session focused on teaching terms and techniques of grant writing, developing a proposal and budget, and finding available grant-funding agencies.

### **Allen University Environmental Justice Institute (AUEJI) 2021**

DOE and Allen University established AUEJI in October 2015. AUEJI works with EJ communities to promote youth development, and to attract 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. The objectives include:

- To work with environmentally stressed communities with a major focus on youth development.
- To raise awareness among community members about the environment and health issues affecting their communities.

- To provide communities with the tools to identify and analyze the environment and health issues and conditions.
- To provide communities with tools to identify and utilize resources to address the issues.
- To develop leadership within the community to increase the likelihood of success in sustaining community interventions.
- To build a sustainable pipeline of students that are educated in the environmental factors that impact upon community health as a way to increase interest in STEM.

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 SRS in Aiken and other South Carolina communities.

On June 18-19, 2021, AUEJI conducted a community outreach in Marion, South Carolina. The outreach, “Building a Healthy Community Together,” was conducted for community residents and leaders to discuss environmental and health issues facing Marion County. Community members were invited to participate on a panel to discuss issues and concerns and how AUEJI can help resolve EJ issues.

AUEJI Community Outreach goals include:

- Increasing awareness on EJ issues.
- Listening to community leaders and recognizing EJ issues in their area.
- Suggesting possible practicable solutions.

Topics covered during the two-day event included information related to CERCLA, mental health, COVID-19 and health services in Marion County, advocacy for residents of Marion County, economic services, and adult literacy. AUEJI also brought all three community outreach neighborhoods (Andrews, Pamplico, and Marion) together in September 2021 for an AUEJI follow-up meeting to discuss the next steps toward resolution of environmental issues within the communities.

A fourth community outreach was conducted in Trio, South Carolina, on Aug. 27-28, 2021. Collaborative arrangements were made with local health agencies to have COVID-19 testing and vaccinations performed. On July 15, 2021, AUEJI representatives revisited Marion County, to interact with high school students to engage in university education paths.

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

### Site-Specific Advisory Boards (SSABs)

The EM SSAB was created to directly involve stakeholders in EM cleanup decisions. When stakeholders share their opinions by becoming involved in cleanup discussions, federal decision-making and cleanup activities are improved. Public input helps agencies make decisions that are cost effective, community specific, and environmentally sound, which leads to faster, safer cleanups.

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In accordance with its [charter](#), the EM SSAB provides EM senior management with information, advice, and recommendations concerning issues affecting the EM program at various sites. At the request of the Assistant Secretary or 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 long-term stewardship.
- Risk assessment.
- Communications

The EM SSAB's 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 have been organized under its umbrella charter.

- [Hanford Advisory Board \(HAB\)](#).
- [Idaho Cleanup Project Citizens Advisory Board](#).
- [Northern New Mexico Citizens' Advisory Board](#).
- [Nevada SSAB](#).
- [Oak Ridge SSAB](#).
- [SRS Citizens Advisory Board](#).
- [Portsmouth SSAB](#).
- [Paducah Citizens Advisory Board](#).

HAB's membership framework guides recruitment efforts to ensure EM is populating a diverse, community-focused advisory board. The membership framework is based on the U.S. Census Bureau and identifies goals for location, ethnicity, education, gender, age, interests, and experience.

Local site board membership, which reflects a diversity of views, cultures, and demographics from affected communities and regions, is composed 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.

## **BOARD 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.

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## DOE OBLIGATIONS TO LOCAL SITE BOARDS

- Informing the board about key issues and upcoming decisions.
- Requesting advice in advance 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 April and October 2021. [Meeting information](#) is available to the public. Information on specific boards can be located at the individual site webpages.

## Teaching Radiation, Energy, and Technology (TREAT) Workshop.

TREAT workshops are a partnership between the DOE SRS in Aiken, South Carolina, and Savannah State University (SSU) in Georgia. Participants range from teachers; students; community representatives; federal, state, and local governments.

The overall goal of the workshops is to educate kindergarten through 12th grade teachers, students, and members of the community who live near the SRS about radiation, sources of radiation, radioactive waste management, the effects of radiation on environmental health, and the negative human health impacts of environmental radiation exposures.



*Rev. Brendolyn Jenkins Boseman,  
Speaker at the 2021 TREAT Workshop*



*Participants: MES Students, SSU TREAT Manager, and Savannah River  
Site EJ Program Coordinator*

Teachers also hope students will take workshop messages back to their communities. In addition, the workshops provide an opportunity to capitalize on building stronger networks with neighboring stakeholders, as well as those downstream from the SRS.

This year's workshop was conducted in a hands-on, interactive format. The workshop is a unique opportunity for DOE to partner with the local community and work collaboratively.

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## Fish and Wildlife Mitigation Program

The [Bonneville Power Administration](#) (BPA) Fish and Wildlife Program is committed to protecting native fish and wildlife species and improving research and data collection methods relating to the Columbia Basin ecosystem, which is home to many minorities and low-income populations, including American Indian and Alaska Native populations.

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 Indian tribes through 10-year funding agreements known as the Columbia Basin Fish Accords.

In 2021, BPA spent \$121 million in capital and expense funds for Columbia River Basin tribes to assist BPA in meeting its fish and wildlife obligations. Funding supports jobs for tribal members and others in rural areas that have historically high unemployment rates.

## VIII. SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM) INTERNS AND CAREER DEVELOPMENT

The following activities address the importance of targeting resources to overburdened communities, highlighting agency efforts to identify, modify, and align resources so the Department can better serve the needs of communities. Due to the COVID-19 pandemic, the number of opportunities for events in overburdened, underserved, and economic distressed communities decreased during FY 2021.

### Mentorship for Environmental Scholars (MES) Program

The MES Program is a collaborative effort between Pre-College University (PCU) and DOE to increase minority awareness and participation in the environmental sciences disciplines. The MES Program consists of 10-week, paid summer internships at one of several participating DOE and national laboratories.

After realizing that summer internships would be affected by the COVID-19 pandemic, PCU reached out to participating laboratories and sites and arranged virtual experiences for its 15 newly awarded scholars. To complement the virtual research experience, PCU launched an online academy where scholars completed one soft-skills course per week on topics such as resume and cover-letter writing, networking, and financial literacy. Scholars also participated in a session that provided an in-depth look at the history of each MES host laboratory.

The MES Program recruits, trains, and places interns at DOE laboratories and LM offices across the United States. Annually the program selects 15 traditionally underrepresented students from Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), and Tribal Colleges and Universities (TCUs) to do research and support work for 10 weeks during the summer. Students' major in studies integral to the DOE mission.

The MES Program is a paid summer internship that provides exposure to research in the areas of environmental science, EJ, and environmental policy to underrepresented college students. Interns complete a 10-week virtual internship, meeting several times per week via teleconference and video conference with their DOE mentors to develop summer projects.

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## LM'S 2021 MES PROGRAM SUMMER INTERNS



**Kayla Brown** is a senior at Morgan State University in Baltimore, Maryland, graduating with a civil engineering degree. Brown is pursuing a career in environmental engineering. During her internship with LM, she worked on an Earth system science project, gaining experience in the environmental and engineering fields.

**Jordan Manlove** is a senior at Hampton University in Virginia, and plans to complete his degree in strategic communications. During the internship, he focused on developing a manual to help future MES interns. Manlove is excited to grow his skill set after learning from LM's communications professionals.

### Minority Educational Institution Student Partnership Program (MEISPP)

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 minority serving institutions (MSIs) and other colleges with large minority populations. Interns from across the United States and Puerto Rico have participated.

Our goal is to get students excited about and prepared for STEM and energy careers at DOE and other federal agencies, or within the private sector. Engaging in exciting, fulfilling work; gaining confidence; and making career contacts opens opportunities for students of diverse backgrounds and geographies.

In 2021, 107 MSI students were awarded ED [MEISPP internship opportunities](#). These students obtained hands-on experience in science, research, clean energy, and business. The students also received mentorship and professional development training to further enhance their exposure to DOE and the energy sector.

### Career Development

In 2021, the inaugural One Hanford Virtual Career Fair was planned in partnership with HAN contractors, WorkSource Washington, Washington State University (WSU) Tri-Cities, Columbia Basin College, and the Employment Security Department veterans organization. The objectives and goals for the event were to provide DOE and contractors with an avenue to collectively advertise, market, and generate excitement for HAN's important mission, its challenging career opportunities, and to brand HAN as an employer of choice. The planning team developed an effective recruitment model and marketing efforts for the virtual career fair was an outstanding success with more than 1,500 registered participants and over 50 company representatives.

HAN enriched its 2021 recruitment efforts to attract women to technical fields where they are underrepresented. These efforts included enhancing current recruitment processes, supporting DOE diversity, equity, and inclusion (DEI) recruitment initiatives, partnering with regional and national female professional organizations to sponsor networking activities such as the local Society of Women Engineers

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(SWE) chapter, Tri-Cities Women in Business conference, and the Hanford Communities efforts, which are aimed at identifying professionals who have an interest in DOE.

HAN participated in virtual career fairs at local and regional colleges and universities of which two are HSIs in Washington state, the SWE, and the American Indian Science and Engineering Society (AISES) national conference, with the goals of increasing the awareness of HAN employment opportunities and developing a diverse workforce through internships and career entry-level positions.

The HAN office supported DOE DEI by encouraging HAN staff to participate in STEM organizations and activities, HAN championed and supported two education and student employment pipeline programs, the Hispanic Academic Achievers Program, and the Afro-Americans for an Academic Society. Approximately 2,500 students from grades 4-12 were recognized for their academic achievements in 2021, and graduating seniors were given information about careers and internship opportunities at Hanford. Prior to COVID-19, the office supported the local AISES Professional Chapter, science and cultural activities, and other K-12 outreach programs, including the WSU Tri Cities Summer STEM Camp, and the Skills Development Center High School Summer Science Laboratory Program, where numerous minority and female students work on and are introduced to environmental, energy, robotics, and technology science projects. HAN anticipates supporting some of these activities in 2022, as staff returns to the office.

In 2021, HAN supported the successful annual Tri-Cities Veterans Resource Stand Down & Expo at the Kennewick South Ridge Complex, which was sponsored by the Columbia Basin Veterans Center and attended by HAN contractors, higher education and community organizations. More than 500 veterans from the local community attended the event. We also championed and represented the HAN Offices at the Access Tri-Cities organization's community-wide event attended by more than 100 people, this organization provides outreach activities and employment information to persons with disabilities.

The EM Richland Operation Office (RL)/Office of River Protection (ORP) Equal Employment Opportunity (EEO) and diversity manager is a participating member of the Hanford Future Workforce subcommittee, the Hanford site Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Tribal Employment and Education Steering subcommittee, and the WSU Tri-Cities STEM committee, whose charters are to develop HAN strategies on diversity, employment, education, and training efforts.

In a typical year, the EEO office sponsors several presentations at universities and colleges and area high schools with large minority populations, educating them on HAN's history, mission, progress, challenges, career, and employment opportunities, including student internships and skilled trade apprenticeships. Due to COVID-19, the EEO manager was only able to conduct virtual presentations at two high school events and two universities in 2021. When pandemic controls permit, HAN will schedule and conduct presentations at local and regional schools.

In 2021, the RL/ORP EEO manager and human resources (HR) director helped form the Columbia Basin Diversity, Equity, and Inclusion committee (DEI). The DEI is composed of HAN prime contractor HR managers and staff, the Pacific Northwest National Laboratory diversity manager, employment representatives from Columbia Basin WorkSource, veterans organizations, WSU Tri-Cities, and CBC. The Colombia Basin DEI core charter and mission is to attract, recruit, and connect talented job seekers from local, state, and national resources with Tri-Cities employers, with a major emphasis on DOE and HAN. These recruitment and marketing efforts target women and minorities (professional, technical, and administrative) and career-transitioning military personnel, disabled veterans and persons with disabilities.

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ED collaborated with Hampton University in Virginia and Fort Valley State University and Morehouse College in Georgia to support STEM education outreach and engagement strategies that cultivate partnerships between MSI college students, high school, and middle school students from underserved communities to help expose the K-12 students to STEM activities and educational opportunities.

ED continued to administer and execute the Minority Education, Workforce, and Training Program, which awarded more than \$4 million to MSIs and minority business enterprises (MBEs) to support STEM education, capacity building, technical assistance, training, and workforce development.

Collaborating with the DOE National Laboratories, ED hosted webinars that enable MSIs and MBEs to increase their awareness, interest, and access to the DOE National Laboratory research projects, contracts, internships, and fellowships.

EERE's support of women innovators in research and development continued during the annual Clean Energy Education & Empowerment Award nomination as a member of the nomination review panel. EERE participates and chairs the Partnership for Transatlantic Energy and Climate Cooperation Women in Energy group. EERE shares organizational efforts and accomplishments related to justice, equity, and inclusion in multiple conferences for state, local, and tribal audiences (e.g., National Association of Regulatory Utility Commissioners and National Association of State Energy Officials).

EERE integrated equity, diversity, and inclusion into all program and merit reviews for \$667 million in FY 2021 funding.

With COVID-19 restrictions lifting, more outreach is planned in local schools in 2022.

STEM with LM scientists and researchers inspire young audiences and bring learning to life. In June 2021, a demonstration was given to the We Are Resilient, Intelligent, Successful, and Empowered (R.I.S.E.) Inc., a mentorship group for young girls of color. Partnering with R.I.S.E., STEM with LM said “yes” to a community in South Los Angeles that has a dearth of such programs for students by giving as many kids access to the lesson as possible, lowering the barrier for participation by shipping science experiment materials to the students.

**“ ... an increased focus on EJ is building momentum behind programs such as STEM with LM that provide resources and education in underserved communities. President Biden’s EO on the climate crisis solidified EJ as a top priority for the federal government, and STEM [with] LM is proud to support the effort. ”**  
– Darina Castillo, LM Site Manager

Three environmental science undergraduate students at Colorado Mesa University presented their senior project to LM officials, including LM Director Carmelo Melendez and Deputy Director Peter O’Konski in December 2020. The project allowed the students to apply skills that they learned during their undergraduate careers and allowed them to do so in a way that was impactful.

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STEM with LM sets up students with internships and volunteer opportunities that enhance the diversity and development for future workers, including the MES program and the MEISPP. LM also participates in multiple conferences and events, such as the AISES annual conference that includes a college and career fair. This event has become the premier event for Indigenous STEM professionals and 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 continues to provide the students the opportunity to conduct projects, such as the greenhouse studies, wastewater and laboratory column studies, and river sediment collection and analysis for inorganic and organic contaminants.

The environmental science curriculum continues to be enhanced through the DOE-funded EJ grant and has given more than 43 environmental science students the opportunity to become technically qualified to assist DOE's SRS and other federal agencies in the future as it faces challenging employee attrition with the aging workforce.

## STEM Rising Community of Practice

**STEM Rising** is your go-to resource for the essential building blocks to accomplishing DOE's mission from coast to coast.

STEM Rising inspires, educates, and sparks lifelong success in STEM by sharing resources and events from the National Labs, NNSA, and program offices. Examples of activities include:

- Oak Ridge contractor intern program.
- Ohio students technical writing experience through EM management assignment.
- EM intern work and outdoor pursuits in Idaho.

## Supporting STEM in Education in Tribal Communities

EM manages a cooperative agreement with SFIS, supporting a community-based education program. The interdisciplinary approach impacts hundreds of students and blends traditional classroom learning with



*Math Festival at Española, New Mexico, Middle School*

regular field trips, integrating community knowledge, student experiential learning, and resolution of community issues — all of which prepare future tribal leaders. The curriculum embraces traditional ecological knowledge to expose students to current or anticipated environmental issues in their communities.

LANL also supports SFIS. DOE values the importance of education and supports initiatives to help educate and train tomorrow's scientists and engineers. Specifically, EM continues to support an innovative program at SFIS, which encourages tribal youth to consider

careers in scientific and technical areas of environmental protection. In a community-based approach, students learn hands-on environmental monitoring and analytical skills. They work with Pueblo environmental program staff in water and wildlife monitoring as well as cultural resource protection activities. What students learn in the classroom is applied in field work important to the Department's cleanup activities.

In 2021, the "Supporting STEM Education in Tribal Communities" project team, co-led by NE and a member of the Shoshone-Bannock Tribe, extended their work to include developing a piloting tool to connect educators and tribal communities.

The DOE Tribal STEM Subcommittee, composed of members from the three DOE Tribal Working Groups, in concert with DOE and NCSL, developed a tribal STEM survey that was broadly distributed in each tribe that is part of the three DOE-chartered working groups. The subcommittee continued to analyze the results of the survey. They hope to reach out to tribes with unique input provided and co-produce knowledge around STEM.



*Mindset Math Camp at Pojoaque, New Mexico*

ED serves as a member of AISES Government Relations Council, which convenes quarterly to discuss and coordinate federal-wide strategies for engaging with the tribal communities. ED collaborated with AISES by continuing to execute a \$294 thousand financial assistance award to support the AISES Energy Workforce Development (AEWD) Cohort program. AEWD was designed to establish a cohort of 24 Native American two-year students with a focus on:

- Creating a mentorship network of students and professionals in the energy and related fields sector.
- Providing scholarships to Native students to increase retention in undergraduate studies.
- Providing educational support services to ensure two-year students transfer to four-year institutions, inclusive of professional development services.

In November 2021, NE staff lead nuclear energy literacy activities with the Pueblo of Picuris STEM Day in a virtual setting. The Pueblo of Picuris is in Taos County, New Mexico. NE also shared additional resources from federal agencies for [STEM at Home](#). NE staff served as the featured speaker at the U.S. Department of Education's Focus on Energizing STEM. The presentation focused on tribal STEM and the collaborative work with the [100Kin10 Project Team](#), "Supporting STEM Education in Tribal Communities."

In June and July 2021, NE staff were asked to participate in the Pueblo Pojoaque Valley Mindset Math Summer Camp. Nuclear energy literacy was presented in two separate sessions virtually, with a total of 30 students. Prior to the presentations for tribal students in Santa Fe, New Mexico, STEM resources were sent to the camp so students and teachers could increase their technical skills.

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## Educate, Motivate, and Innovate (EMI)

This national initiative highlights student projects that address the relationship between climate change and its impacts on minority, American Indian Tribes and Alaska Natives, and vulnerable and underserved communities. EMI is a working group composed of representatives from different federal agencies.

The EMI Call for Student Climate Justice Abstracts is open to undergraduate and graduate students attending MSIs, including: HBCUs, TCUs, HSIs, and Asian American and Native American Pacific Islander Serving Institutions.

Selected students will travel to Washington, D.C., to present their abstracts during the EMI workshop, which will be held in conjunction with the NEJC. Students will also be able to share their work during the student poster presentations.

## Internships and Mentoring

The HAN Equal Employment Opportunity Manager is responsible for local administration of the RL/ORP year-round and summer intern program, which requires coordination with DOE Office of the Chief Human Capital Officer (OCHCO), Oak Ridge Institute for Science and Education and MES, and involvement with the OCHCO Summer Intern Speakers Series and Orientation program. The RL/ORP intern program typically has between 15-20 summer students and three to five year-round interns between both offices, but in 2021 was scaled down to five interns who worked virtually because of COVID-19 safety protocols. We are on target in 2022 to increase our numbers like pre-COVID-19 levels.

In 2021, DOE Kansas City National Security Campus (KCNSC) continued to support the Additive Manufacturing Network Consortium, the Pipeline Development of Skilled Workforce in STEM Through Advanced Manufacturing Consortium, Advanced Manufacturing Post-Processing Partnerships Consortium, and the Partnership for Research and Education Consortium in Ceramics and Polymers Consortium. Additionally, KCNSC provided support for two new consortiums: Advanced Sensors Technologies for Applications in Electrical Engineering Consortium and the Consortium Enabling In- and Ex-Situ Quality Control of Additive Manufacturing.

In addition to MSIs, LANL managed other DOE-sponsored internships and outreach efforts to minority and low-income communities including:

- Research programs.
- The National Consortium of Graduate Degrees for Minorities in Engineering.
  - In FY 2021, LANL secured nine new participants, bringing the total number of current fellows to 30, which is the largest in lab history.



*Math Festival at Española, New Mexico, Middle School*

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- Graduate Fellowship Program Grant.
    - In FY 2021 the program continued its involvements and hired 12 fellows.
    - The program remains an integral workforce pipeline for weapons and Science, Technology, and Engineering at LANL.

The NNSA MSIPP is an ongoing effort to build a sustainable pipeline between DOE sites and labs and MSIs in STEM disciplines, and bring a heightened awareness of NNSA plants and laboratories to institutions with a common interest in STEM research fields. The program includes STEM educational outreach initiatives to underrepresented K-12 students. In FY 2021, LANL hosted 65 students through the program.

In FY 2021, LANL hosted the second season of the virtual LANL Wildfire Simulation and Visualization Camp, which serves students who attend MSIs. Fourteen students were selected to participate in the camp.

IE continued to support STEM by continuing its internship program, which included:

- Undergraduate and graduate interns: 26.
- Tribal affiliations: 12.
- Interns converted to year-round status (6 of 20): 23 percent.
- Interns hired as full-time employees or contractors (3 of 26): 12 percent.
- Female interns (19 of 26) currently: 73 percent.
  - BPA has 18 Pathways student trainees.
    - Based on self-reporting, 33 percent of those students are minorities.
- Two African American students: 11 percent.
- One Asian student: 5.5 percent.
- Two Hispanic/Latino students: 11 percent.
- Zero American Indian/Alaska Native students: 0 percent.
- One two-or-more races students: 5.5 percent.

In 2021, BPA hosted two AISES students in partnership with AISES.

EERE, through a partnership between the Building Technologies Office and NREL, is providing funding for a cohort of six National Consortium of Graduate Degrees for Minorities in Engineering (GEM) Fellows that will have dual mentors from DOE's Building Technologies Office and NREL. This effort is working to diversify the scientific workforce in clean energy industries.

### Clinch River Environmental Studies Organization (CRESO)

Started in 1989, [CRESO](#) is an educational and research collaboration in Tennessee composed of 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,

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and budget oversight, and technical support). CRESO's goal is to actively engage middle and high school students in long-term ecological field studies focusing on the flora and fauna of the East Tennessee Ridge and Valley Ecoregion. More than 800 students have served as primary researchers and hundreds more have experienced elements of the program 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 a diversity of students of various ages and backgrounds to accomplish common goals and promote a deeper sense of community is a cornerstone of the CRESO mission.

Staff members and partners encourage and actively demonstrate teamwork as the overriding principle of scientific research. 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 core of the CRESO program. 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 of the most effective programs 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.

## ACRONYMS

<b>AEWD</b>	.....	AISES Energy Workforce Development
<b>Age Act</b>	.....	Age Discrimination Act of 1975
<b>AISES</b>	.....	American Indian Science and Engineering Society
<b>ALC</b>	.....	Atomic Legacy Cabin
<b>AML</b>	.....	abandoned mine lands
<b>AR</b>	.....	Administrative Records
<b>ATEM</b>	.....	Accord Technical Exchange Meetings
<b>AUEJI</b>	.....	Allen University Environmental Justice Institute
<b>AUMs</b>	.....	abandoned uranium mines
<b>BIA</b>	.....	Bureau of Indian Affairs
<b>BPA</b>	.....	Bonneville Power Administration
<b>Braintrust</b>	.....	Environmental Justice Braintrust
<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>DEI</b>	.....	diversity, equity, and inclusion
<b>DOE or Department</b>	.....	U.S. Department of Energy
<b>DOI</b>	.....	U.S. Department of the Interior
<b>DOT</b>	.....	Department of Transportation
<b>DRUM</b>	.....	Defense-Related Uranium Mines
<b>ED</b>	.....	Office of Economic Impact and Diversity
<b>EERE</b>	.....	Energy, Efficiency, and Renewable Energy
<b>EHSS</b>	.....	Environment, Health, Safety and Security
<b>EJ</b>	.....	environmental justice
<b>EM</b>	.....	Office of Environmental Management
<b>EMI</b>	.....	Educate, Motivate, and Innovate
<b>EM-LA</b>	.....	Environmental Management Los Alamos Field Office
<b>EO 12898</b>	.....	Executive Order 12898
<b>EO 13985</b>	.....	Executive Order 13985
<b>EO 14008</b>	.....	Executive Order 14008
<b>EOC</b>	.....	Emergency Operations Center
<b>EPA</b>	.....	U.S. Environmental Protection Agency
<b>EPCU</b>	.....	Electrical Power Capacity Upgrade
<b>FACA</b>	.....	Federal Advisory Committee Act
<b>FFA</b>	.....	Federal Facility Agreement
<b>FRA</b>	.....	Federal Railroad Administration
<b>FTWC</b>	.....	Flanged Tritium Waste Containers
<b>FY</b>	.....	fiscal year
<b>HAB</b>	.....	Hanford Advisory Board
<b>HAMMER</b>	.....	Hazardous Materials Management and Emergency Response
<b>HAN</b>	.....	Hanford Site, Washington
<b>HAN</b>	.....	Hanford, Washington, Site
<b>HBCUs</b>	.....	Historically Black Colleges and Universities

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<b>HSIs</b> .....	Hispanic-Serving Institutions
<b>IAC</b> .....	White House Environmental Justice Interagency Council
<b>ICEIWG</b> .....	Indian Country Energy and Infrastructure Working Group
<b>IE</b> .....	Office of Indian Energy Policy and Programs
<b>INL</b> .....	Idaho National Laboratory
<b>Interim Guidance</b> .....	Interim Implementation Guidance for the Justice40 Initiative
<b>IWG EJ</b> .....	Interagency Working Group on Environmental Justice
<b>KCNSC</b> .....	Kansas City National Security Campus
<b>LANL</b> .....	Los Alamos National Laboratory
<b>LAPP</b> .....	Los Alamos Pueblos Project
<b>LTS</b> .....	long-term stewardship
<b>MAPR</b> .....	Manhattan Project National Historical Park
<b>MBEs</b> .....	minority business enterprises
<b>MCM</b> .....	Morgan Community Mile
<b>MEISPP</b> .....	Minority Educational Institution Student Partnership Program
<b>MES</b> .....	Mentors for Environmental Scholars
<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>NA-LA</b> .....	NNSA Los Alamos Field Office
<b>NCHD</b> .....	National Conference on Health Disparities
<b>NCSL</b> .....	National Conference of State Legislatures
<b>NE</b> .....	Office of Nuclear Energy
<b>NEJC</b> .....	National Environmental Justice Conference and Training Program
<b>NEPA</b> .....	National Environmental Policy Act
<b>NEPA</b> .....	National Environmental Policy Act
<b>NETWG</b> .....	Nuclear Energy Tribal Working Group
<b>NNAM</b> .....	Navajo Nation Abandon Mine Lands Reclamation
<b>NNSA</b> .....	National Nuclear Security Administration
<b>NPS</b> .....	National Park Service
<b>NREL</b> .....	National Renewable Energy Laboratory
<b>O&amp;M</b> .....	operation and maintenance
<b>OCHCO</b> .....	Office of the Chief Human Capital Officer
<b>OCR</b> .....	Office of Civil Rights
<b>OMB</b> .....	Office of Management and Budget
<b>OREM</b> .....	Oak Ridge Office of Environmental Management
<b>PCU</b> .....	Pre-College University
<b>PIP</b> .....	Public Involvement Plan
<b>PIR</b> .....	Public Information Repositories
<b>R.I.S.E.</b> .....	Resilient, Intelligent, Successful, and Empowered
<b>Rail/Routing AHWG</b> .....	Spent Nuclear Fuel Rail/Routing Ad Hoc Working Group
<b>RCRA</b> .....	Resource Conservation and Recovery Act
<b>Report</b> .....	U.S. Department of Energy Environmental Justice Implementation Report
<b>SAN</b> .....	Sustainability Assistance Network
<b>Section 504</b> .....	Section 504 of the Rehabilitation Act of 1973
<b>SF6</b> .....	Sulphur Hexafluoride
<b>SFIS</b> .....	Santa Fe Indian School
<b>SPCC</b> .....	Spill Prevention, Control, and Countermeasure

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<b>SRS</b> .....	Savannah River Site
<b>SSABs</b> .....	Site-Specific Advisory Boards
<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 Administration
<b>TAWs</b> .....	Technical Assistance Workshops
<b>TCUs</b> .....	Tribal Colleges and Universities
<b>TDEC</b> .....	Tennessee Department of Environment and Conservation
<b>TIGR</b> .....	Tribal Intergovernmental Relations Group
<b>Title IX</b> .....	Title IX of the Education Amendments of 1972
<b>Title VI</b> .....	Title VI of the Civil Rights Act of 1964
<b>TPA</b> .....	Tri-Party Agreement
<b>TREAT</b> .....	Teaching Radiation, Energy, and Technology
<b>TRMTC</b> .....	Tribal Radioactive Materials 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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