APPENDIX A

U.S. DEPARTMENT OF THE INTERIOR

ENVIRONMENTAL JUSTICE
ANNUAL IMPLEMENTATION REPORT

2015

Goal #3, Performance Measure #1

Number of Partnerships with others, including educational institutions and tribes, to share and benefit from specialized expertise in furthering environmental justice goals

[Please note that this appendix is not inclusive of the all Department's partnerships with others and is only a snapshot of what is being done to address environmental justice]

THIS PAGE IS INTENTIONALLY LEFT BLANK

BUREAU OF OCEAN ENERGY MANAGEMENT (BOEM)

http://www.boem.gov

BOEM joined the National Cooperative Ecosystem Studies Unit (CESU): North & West Alaska CESU, Pacific Northwest CESU, Gulf Coast CESU, North Atlantic Coast CESU, Piedmont - South Atlantic CESU, Californian CESU, and Hawaii-Pacific Island CESU. These eight partnerships facilitate access to a wide range of expertise to address federal agency needs and advance the scientific understanding of coastal and marine ecosystems.

BOEM Coastal Marine Institute with Louisiana State University and the University of Alaska at Fairbanks are designed to respond to BOEM, state, local information needs, and interests with local expertise in the Outer Continental Shelf relevant disciplines.

BOEM Environmental Studies Program is currently working in partnership with the University of Rhode Island and the Narragansett Indian Tribe to develop a science-based, standardized "best practices" methodology for identifying submerged ancient Native American archaeological resources when evaluating proposed offshore wind-energy projects.

In addition, the Studies Program is working on a study called, "Characterizing Tribal Cultural Landscapes" in partnership with the NOAA (Maritime Heritage Program and Office of National Marine Sanctuaries). NOAA and BOEM participated in intertribal workshops with the Confederated Tribes of Grand Ronde, the Makah Tribe, and the Yurok Tribe to develop a transferable, transparent, and cost-effective method for tribes with a connection to the coast to document past and present places and resources significant to their communities and outside agencies, thus enhancing their capability for consultation.

BUREAU OF INDIAN AFFAIRS (BIA)

http://www.bia.gov

The BIA mission is to enhance the quality of life, to promote economic opportunity, and to carry out the responsibility to protect and improve the trust assets of American Indians, Indian tribes and Alaska Natives.

The BIA carries out its core mission to serve 566 federally-recognized tribes through four offices. The Office of Indian Services operates the BIA's general assistance, disaster relief, Indian child welfare, tribal government, Indian Self-Determination, and reservation roads programs. The Office of Justice Services directly operates or funds law enforcement, tribal courts, and detention facilities on federal Indian lands. The Office of Trust Services works with tribes and individual American Indians and Alaska Natives in the management of their trust lands, assets, and resources. Finally, the Office of Field Operations oversees 12 regional offices and 83 agencies which carry out the mission of the BIA at the tribal level.

The BIA partners with tribes to help them achieve their goals for self-determination while also

maintaining its responsibilities to comply with relevant federal laws and to honor the Federal-tribal trust and government-to-government relationships. The BIA entered into over 3,200 partnerships, agreements and contracts with tribes that benefit tribal programs and further self-determination. However, because sustainable water management and conservation is an element of the Department's overall Strategic Plan, and water quality studies are specifically addressed in the Department's EJSP, the BIA has chosen this area as a measure for this goal.

The number of projects completed in support of water management, planning and predevelopment varies from year to year. This measure depends on the proposals that receive available funding and the length of contract terms and is tracked in the Indian Affairs Performance Management System (IAPMS) (BIA Measure No. 2052). The BIA completed 136 water management projects in FY2015.

BUREAU OF RECLAMATION (BOR)

http://www.usbr.gov

Trinity River Restoration Program

Reclamation provides annual funding agreements (AFA) that recognizes the special government-to-government (G2G) relationship between several federally recognized tribes in the Klamath River Basin, which spans a vast region in northern California and southern Oregon and the United State of America as reaffirmed in the Tribal Self-Governance Act. These AFAs implement Sections 403(b)(2) and 403(c) of the Tribal Self-Governance Act. Activities under these AFAs provide Reclamation with data collection and analysis needed to assist in the management of fish populations in the Basin. On the Trinity River, tributary to the Klamath River, tribal activities include implementation of an Adaptive Environmental Assessment and Management Program as identified in the Secretary's December 19, 2000, Record of Decision (ROD) regarding Trinity River Mainstem Fishery Restoration.

As part of the Trinity River Restoration Program (TRRP: http://www.trrp.net/), which is charged with implementing the ROD, Reclamation funds its partners, the Hoopa Valley and Yurok Tribes, to collect needed data and to implement physical Trinity River restoration activities. Both tribes participate in scientific studies and analyses to provide needed information to restore Trinity River form and processes, and ultimately to recover historic Trinity River salmon and steelhead populations. The Yurok tribe constructed the Limekiln Gulch channel rehabilitation project in summer 2015 and the Hoopa Valley tribe has been developing their construction capabilities and leading revegetation efforts this year. Both tribes participate on both policy and technical tasks and the TRRP strives to implement the best available science to inform and evaluate restoration success.

Klamath Project Operations Endangered Species Act Section 7 Consultation

Reclamation provides annual funding agreements (AFA) that recognizes the special government-to-government (G2G) relationship between several federally recognized tribes in the Klamath River Basin, which spans a vast region in northern California and southern Oregon and the United State of America as reaffirmed in the Tribal Self-Governance Act. These AFAs implement Sections 403(b)(2) and 403(c) of the Tribal Self-Governance Act. Activities under these AFAs provide Reclamation with data collection and analysis needed to assist in the management of fish populations in the Basin.

On the Klamath River mainstem, the 2013 Joint Biological Opinions on Klamath Project Operations (2013 BiOp), requires Reclamation to continue to ensure that key elements of the Klamath River Coho monitoring program are funded. This includes tribally-funded Klamath River coho salmon monitoring and reporting programs including mainstem Klamath juvenile monitoring using rotary screw traps and fyke nets, fish collection for ongoing disease research, and adult salmon carcass and red surveys performed by the Yurok and Karuk Tribes, under which Reclamation continues to fund through the AFA program. These monitoring programs have also contributed to the development of new tools (Stream Salmonid Simulator (s3) coho model) improving fishery and water management activities in the Klamath Basin. The Proposed Action included in the 2013 BiOp, includes a Conservation Measure, proposed by Reclamation provides for $500,000 annually, subject to the availability of future funding and annual appropriations, to develop the Klamath River Coho Restoration Program in support of restoration activities for SONCC coho salmon and its critical habitat. The function of the restoration activities will be to provide survival and recovery of the SONCC coho salmon, also a tribal trust species.

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT (OSMRE)

http://www.osm.gov

Engaging the Next Generation through AmeriCorps VISTA

The Office of Surface Mining Reclamation and Enforcement offers thousands of youth and volunteer opportunities for the public, with particular focus on serving minority, low-income, and tribal communities in accordance with the Secretarial Order for Engaging the Next Generation.

In April 2015, the OSMRE Western Regional office partnered with Trips for Kids Denver Metro to coordinate an inaugural mountain biking and learning for 25 students in Lakewood, Colorado. Trips for Kids provides biking experiences for underserved, urban youth in the Denver Metro area. During the activity, OSMRE employees educated students about public lands stewardship, OSMRE's mission, and careers in federal government.

BUREAU OF LAND MANAGEMENT (BLM)
http://www.blm.gov

BLM is reporting 67 environmental justice related partnerships and projects for FY2015. These partnerships include:

National Trails Day Observance

BLM's Washington Office Environmental Quality and Protection Division (WO-280) and Eastern States Office (ESO) recently partnered with the Maryland-National Capital Park and Planning Commission to co-sponsor a National Trails Day event benefitting the Indian Creek Trail in College Park, Maryland. The event informed urban school educators about the connections between the BLM and the community. More than 200 students, faculty, and parents attended the June 6 event.

National Trails Day is the country's largest celebration of trails. Attendees learned firsthand about sustainability and protecting human health and the environment. They participated in trail clean up, planted 100 trees, and pulled invasive weeds. The event also included a "Learn and Lunch" session where students discussed career topics of interest with BLM natural and cultural resource professionals.

American Indian Science and Engineering Society and Certified Federal Surveyor Program Scholarships

The American Indian Science and Engineering Society (AISES) has partnered with the Certified Federal Surveyor Program (CFedS) to offer scholarships for enrolled members of federally-recognized Native American tribes. The scholarships support training and certification in Federal cadastral survey processes. CFedS is co-administered by the Bureau of Land Management and the National Society of Professional Surveyors. Tribes, BIA, individuals, and other Federal agencies are encouraged to select a CFedS when land surveys or other cadastral services are needed.

The CFedS Program is a voluntary program designed to increase the pool of qualified surveyors to perform work on or near Federal interest lands, including Indian lands, and provide opportunities to increase self-determination for Indian tribes. To learn more visit AISES at: http://www.aises.org/ or the CFedS Program at: http://www.cfeds.org/.

National Petroleum Reserve in Alaska Subsistence Advisory Panel

Established in 1998, the NPR-A Subsistence Advisory Panel (SAP) is an important advisory body to the BLM and helps minimize the impact from oil and gas activities to subsistence hunting, fishing, and lifestyles of the indigenous Iñupiaq Eskimos. Representatives of tribal governments in NPR-A communities meet three times per year to consult with lessees/permittees on the timing, siting, and methods of proposed operations. SAP members review industry's proposed actions, help develop monitoring plans, and share perspectives from their communities. In 2010, the SAP expanded its purview to include reviewing and disseminating information on scientific research

projects in the NPR-A.

SAP meetings are public and provide residents of remote NPR-A communities with opportunities to get informed on activities in their areas, to publicly discuss disproportionate impacts, and to identify and suggest methods to mitigate adverse effects on their minority, low-income, tribal population. The SAP meetings are also a significant benefit to researchers: they are able to make contacts for local logistical help for their projects, gather traditional and local knowledge about their research subjects, and gain experience presenting often highly scientific projects to the general public. The benefits of the meetings extend beyond those present because summaries of the meetings are widely shared through a large SAP General Interest email list that includes many North Slope residents, researchers, industry, and NGOs.

Regular Government-to-Government Consultation with Native Village of Nuiqsut to Discuss Environmental Justice Impacts of Nearby Oil Development

The BLM Arctic Field Office and Native Village of Nuiqsut have developed a solid working relationship during the past year as the BLM has been working on a Supplemental Environmental Impact Statement for oil development (GMT1) near the community. The Nuiqsut Council and BLM Arctic Field Office conduct weekly government-to-government consultation by teleconference to discuss GMT1 and a broad range of concerns related to nearby oil development. The Environmental Justice analysis in the GMT1 Supplemental EIS, which identified potentially high and disproportionate effects, was based on a thorough understanding of the potential impacts to subsistence and sociocultural systems gained through this close cooperation with the tribal council.

This ongoing and long-term consultation process has allowed the Council to gain a better understanding of the NEPA process and the specifics of this SEIS. Many potential new mitigation measures were developed in close cooperation with the tribal council. The sociocultural, subsistence, and environmental justice impact analyses depended heavily on and cited the consultation.

Day in the Desert 6th Grade Event

Under a Take It Outside assistance agreement with the Washington County School District in St. George, Utah, the Arizona Strip Field Office works directly with Sunrise Ridge Intermediate School in conducting outdoor hands-on activities for 6th and 7th graders. The purpose of the program is to get 6th graders outside to study in an outdoor setting. It also serves as a feeder program to the Color Country Natural Resources Camp, a week-long natural resources studies camp for older, high school age, students. The Arizona Strip District is one of many partners with the school that help put on this activity each year. Approximately 200 students participate annually. Many of the students are of Hispanic, Navajo Nation, and Southern Paiute Tribe backgrounds.

Among the benefits of the program is to introduce students and parent/chaperones, from low income, minority or tribal groups, to the recreational resources of the Arizona Strip Field Office.

Another benefit is to provide a culturally different tribal perspective on desert plants and the ongoing uses by the local Shivwits Paiute tribal members.

Grand Canyon-Parashant National Monument: Yevingkarere Youth Camp

The BLM Grand Canyon-Parashant National Monument (GCPNM) supports environmental justice outreach efforts through sponsoring the annual Yevingkarere youth camp, a joint project among the bands of Southern Paiutes, National Park Service and the Bureau of Land Management. This project provides an opportunity for Paiute youth, ages 8-10, to experience natural and cultural resources associated with a portion of their tribal traditional homelands on the GCPNM. The camp provides opportunities for Paiute youth, ages 8-10, from Southern Paiute tribal bands in Arizona, Utah, and Nevada to gather in their traditional homelands and learn about their culture from tribal elders.

Tribal youth and elders work with representatives of several federal agencies to immerse participants in traditional tribal practices, connect with ancestral and cultural ties to the land, strengthen ties to Monument resources, and increase awareness of stewardship responsibilities. This year marked the 9th year of the camp.

Mohave Valley Ethnographic Study

The Kingman Field Office (KFO) initiated the Mohave Valley Ethnographic Study in 2012. This multidisciplinary investigation was intended to obtain Ft. Mojave Indian Tribe (FMIT) perspectives and interpretations of land forms, sites, places, and features in an area of extreme western Arizona and extreme eastern California, along both sides of the Colorado River, south of Hoover Dam. This area has been the subject of a great deal of interest from renewable energy industries, recreation developers, the public, and is the traditional territory of several Tribes. The BLM worked with the Fort Mojave Indian Tribe (FMIT) to develop a way to gather information that will be used in future planning and decision making that was acceptable to both the tribe and the agency. Several recent projects have provided some data about the importance of the landscape as a whole, but a broad understanding of the FMIT perceptions of the area was unavailable.

This ethnogeographic and ethnohistoric study will provide the Fort Mojave Indian Tribe with a written record of their traditional uses and interpretations of part of their traditional homeland. These data will also be made available to the BLM and other federal agencies working in the area. This will allow decision makers and planners to account for the FMIT perceptions and interpretations of the landscape early in planning, and to shape proposed actions that can more easily avoid or minimize negative impacts to places and areas of FMIT concern.

Renewable Energy Tribal Outreach: Desert Renewable Energy Conservation Plan

Through numerous outreach efforts, including the *Tribal-Federal Leadership Conference*, BLM Field Office Open Houses, specific renewable energy consultations and technical meetings, 40 federally recognized Desert Area Tribes were provided with forums to engage with Federal executives (DOI, BLM, OIS, SOL, FW, BIA) to identify issues, concerns, interests and to share

information regarding any and all natural and cultural resources in the California Desert Area pertinent to renewable energy and land use planning in Desert Renewable Energy Conservation Plan (DRECP). These outreach efforts also provided Tribes with technical support, maps, presentations, information, data, and contacts.

Tribes were made aware of important issues and statewide processes they may not have been aware of. BLM received a deeper understanding of tribal concerns and valuable input as to those areas of significance to tribes that will help BLM plan and manage in a more informed and equitable manner.

Plant Identification Class

The Needles, CA BLM and the Chemehuevi Tribe's Environmental Protection Agency (EPA) Department hosted a Plant Identification Class at the Chemehuevi Cultural Center. Twenty attendees were introduced to basic principles of plant identification and some of the major plant families in the desert and then went for a walk to identify flowering plants in the field. A tribal member talked about cultural and medicinal uses for some of the plants seen on the walk. The event provided educational opportunities not typically available to tribal or local community members, especially in an isolated part of California.

Tribal members and others of the Havasu Landing community were provided an opportunity to learn plant identification skills, which helps to connect them with their environment and the historic and present uses of native plants. This will better enable tribal members to collect and use native plants safely. It also allowed for a growing partnership between the Needles Natural Resource Specialist and the Chemehuevi EPA department, which will lead to future collaborative and environmental justice events in the future.

Atwell Island Project (AIP) - Community and Youth Engagement

BLM-Atwell Island Project provides funding for science teacher's time to administer an environmental education and work program during the summer months to improve educational opportunities for underprivileged Hispanic students through an agreement with the Alpaugh Unified School District. This program allows hands on experience to introduce youth to careers in natural resources, motivating and encouraging them to pursue higher education and possibly careers with BLM.

The ongoing assistance from AIP increases opportunities for youth in the underprivileged communities of Alpaugh and Allensworth, including employment, career development, volunteering and promoting community connectivity.

Tribal Summer Science Camp

Archaeologists from the BLM Bishop Field Office teamed with the Lone Pine Paiute Tribe to introduce rural tribal elementary school students to the amazing science of archaeology in the Paiute Summer Science Camp. After an introduction to local history, 35 students participated in

guided activities, such as traditional Paiute games, native seed milling, artifact identification, and atlatl throwing, which were designed to expand their new cultural knowledge. The presentation was one of several projects the Bishop Field Office is working with the Tribe to share information about native culture and the value of preserving our shared past.

A future generation is engaged in local history, BLM's role in the area and local tribal culture. BLM garners a closer relationship with the Tribe and local youth introduced to preservation and the value of archaeology.

Bishop - Site Monitoring Training

Archaeological site monitoring training by BLM's Bishop Field Office was provided to members of the Lone Pine Paiute-Shoshone, Big Pine Paiute, Bishop Paiute Tribe, and Fort Independence Paiute. The training was run through the California Archaeological Site Stewardship Program, and included both tribal members and the public at large. Classroom activities, field exercises, an introduction to the Archaeological Resources Protection Act and guidance on working with law enforcement was included in the training.

Tribal members are provided training which helps empower them in the area of cultural resource protection. BLM is assisted its mission to protect cultural resources.

League of United Latino American Citizens (LULAC) Outreach

The BLM California Equal Employment Opportunity (EEO) and Communications offices partnered with BLM Utah EEO to participate in a four day outreach effort during the LULAC national convention. Both offices participated with information tables on BLM career opportunities, great outdoors prospects, and general informational handouts for LULAC attendees. A free tour and lectures of the Red Butte Gardens for over 30 students was sponsored by BLM.

Youth and underserved populations were provided information about natural and cultural resources and careers. BLM was provided insight into a variety of issues Latino Americans face in work and play.

Youth Summit – Multicultural Experiences in the Outdoors

BLM-California hosted the 3rd *Annual Outdoor Summit for Youth*. The Summit was sponsored to strengthen and expand partnerships with youth organizations and other partners that educate, engage, and employ underserved youth from diverse communities and backgrounds. The one-day summit expanded the horizons of California's youth to include the outdoors and the field of natural resources. Participants included youth from the *Generation Green Program*, a natural resources program that targets underserved youth in California, and six high schools from Hispanic Serving School Districts.

The Summit provided a framework for creating positive action and change in California to increase outdoor experiences for youth through partnerships. Youth organizations and young

people were given an opportunity to learn of employment and educational opportunities.

Environmental Science and Design Academy

The BLM participated in the Grant High School's GEO Environmental Science and Design Academy. Grant is an urban high school in an economically challenged area of Sacramento with a diverse student body, 50% of who are English as second language students. This year, a speakers' bureau from BLM, Fish and Wildlife Service and Bureau of Reclamation was created to provide a series of career presentations to 25 classes at Grant High. Additionally, the 3 agencies provided summer internships with students integrated into various program areas, events and field trips.

Students acquired real-life experiences, exposure to environmental stewardship on the public lands and earned stipends via internships

California Archaeological Site Steward Program (CASSP)

The CASSP is a program of the *Society for California Archaeology* funded primarily by one or a combination of federal agencies that receive grants from California State Parks. Volunteers are trained through the program to steward archaeological sites in California.

Cultural resources are preserved for current and future generations. Tribes are empowered to preserve resources that have direct associations to the Tribe. BLM's cultural resources program is assisted by maximizing the number of sites monitored per year.

Tribal Historic Preservation Officer (THPO) Skills Training

The BLM, Ukiah Field Office provided training in archaeological fieldwork methods along with research and scientific techniques to THPOs from various Indian Tribes throughout Northern California. THPOs are often responsible for reviewing projects that involve cultural resources but often lack the formalized training needed to interpret cultural resource records and deconstruct technical information.

Training demystifies archaeology, builds relationships and narrows the knowledge gap between agencies and tribes. Such training can help those without formal educations pursue avenues for additional study and employment.

Family Science Workshops

The BLM Palm Springs Field Office and the Palm Springs Unified School District cooperated to provide Family Science Workshops which were presented free of charge to underserved communities. These programs introduce students to BLM scientists who offered incentive and ideas for conducting quality science projects which were well received by students, parents and teachers.

Workshops prepared children to investigate the natural world using scientific methods. Curiosity was stimulated using the habitat they were already familiar with. Additionally, families were

directed to local natural areas for family outings. Children had the opportunity to interact with BLM scientists with hands-on investigations in an informal, friendly atmosphere.

Off Highway Vehicle Education and Interpretation

The BLM *HIKE Youth Crew* presented an assortment of Off Highway Vehicle (OHV) interactive educational activities, including interpretive displays and plays to over 1,000 people, mostly children. Low income communities were provided with a hands-on program about OHV recreation. Community youth learned about safety in the outdoors, responsible land use, recreation opportunities not far from home, improved safe OHV riding habits and inspiration to get outdoors. BLM will benefit from increased visitors that observe safety rules and better informed where OHV use is allowed or prohibited.

Summer Day Camp Enrichment

Fun, educational and memorable activities are shared with campers at summer sessions. Summer programs designed with special interests for minority communities are accommodated with special activities to shadow the communities' connection with the regional landscape. Centers for minority youth are served, including James O Jesse Highland Unity Center, Agua Caliente Band of Cahuilla Indians and Mecca Boys and Girls Club. Minority youth and underserved populations have access to information about natural and cultural resources, career opportunities and great outdoors opportunities.

Earth Day and Beach Clean Up

The BLM's California Coastal National Monument was showcased with exhibits, activities and interpretation in partnership with Cabrillo Marine Aquarium's Earth Day event. Located in San Pedro, inner city youth groups and families arrived by public transport, car and on foot for this popular annual event. Low income communities were provided with a festival celebration to learn about marine and terrestrial coastal life.

Community youth learned safety at the beach, responsible land use, recreation opportunities not far from home and a national monument they may not have been aware of. BLM will benefit from increasingly educated visitorship.

Public Lands Education Project (PLEP)

The BLM, National Park Service, and US Forest Service work together with community-based organizations such as Raices Cultura, Esperanza Center, Friends of the Desert Mountains and local Tribes, to leverage resources and combine programs to accomplish mutual goals benefitting youth. The PLEP is an effort to educate, engage, and employ underserved youth from inner city and rural communities that are diverse in race, gender, and ethnicity. Young people work together to tackle conservation issues, learn from Native communities, build trails, enhance recreational opportunities and restore cultural and historic landmarks. The PLEP reaches out to underserved populations and to ensure that all Americans enjoy our natural and cultural resources. The Project follows an established curriculum including: cultural and environmental literacy, physical

challenge, team building and leadership, stewardship, and exposure to outdoor careers. This project also introduces and educates youth and their families how to access recreational opportunities and career options with the three federal land management agencies.

Outreach to populations that are under-represented on public lands and provides training and learning opportunities for youth and families. BLM is provided with potential future employees and a public educated on the values of the public lands.

Wild Horse Training Partnership

The BLM and the Sacramento County Sheriff's Department continued a program in which Rio Cosumnes Correctional Center inmates gentle wild horses gathered from BLM-managed public lands. They train the animals for riding, making the animals more desirable for adopters. Inmates are responsible for the care and feeding of the horses as well. The inmates, many of whom are from minority or economically disadvantaged groups, are instructed and supervised by a horse trainer who has experience gentling and training wild horses. The program is able to house up to 200 wild horses and also provides holding space for wild horses awaiting public adoption.

Jail inmates learn new vocational and life skills and experience therapeutic benefits from training and caring for wild horses. BLM is better able to complete its mission of managing wild horse populations as more excess wild horses can be adopted.

Fuels Reduction, Trails, Restoration and Fire Inmate Crews

Through agreements, BLM works with the State of California to provide hazardous fuels reduction, trail maintenance and construction, ecosystem maintenance and forest and rangeland restoration projects as well as fire suppression activities throughout the State. Using cooperative agreements, BLM is able to utilize minimum security prison inmate crews who perform this work on BLM land.

Inmate crews; perform meaningful work, garner job experience, receive a small stipend, an education on the natural environment and view firsthand the effects of wildland fires.

Happy Valley Union Elementary School Greenhouse Program

Sixth graders from Happy Valley Union Elementary School attend lessons taught by BLM staff. This program reaches out to low-income communities and teaches children about public land and native ecosystems. The program's goals are (1) to introduce students to the many facets of native ecosystems, and (2) introduce students to a wide variety of careers, especially in science, technology, engineering and mathematics (STEM).

Minority, low-income, and tribal populations are empowered to build and sustain environmentally and economically sound communities. BLM has greater involvement with the local community. BLM projects are enhanced by the students growing plants for restoration projects, as well as, helping transplant the grown plants.

Trinidad Gateway to the California Coastal National Monument

In partnership with Trinidad Elementary School, Humboldt State University, Trinidad Rancheria, Trinidad Museum Society, Yurok Tribe, North Coast Land Trust, City of Trinidad and Tsurai Ancestral Society, BLM staff offer classroom and field experiences that expand low income rural student's understanding and appreciation of local coastal ecosystems. About 350 students take part in monthly lessons about the coastal environment and participate in citizen science projects, as well as, community outreach.

Students use these experiences and knowledge to promote greater awareness of coastal environments and coastal stewardship among local youth and community members. BLM fosters the next generation of stewards for the public lands.

Mike Thompson Wildlife Area, South Spit Humboldt Bay

In partnership with Friends of the Dunes and Fish and Wildlife Service, BLM works to provide the *Bay to Dunes Education Program* to 600 students a year. The program provides low income rural students (grades 3-6) with educational experiences, both in-class and field trips, exploring local bay, salt marsh, freshwater marsh, coastal forest, beach, and dune habitats. Cultural history is presented to help students understand the relationship of humans, past and present, to the ecology of the area.

Humboldt County children will experience, value, and advocate for the beauty and natural diversity of coastal bay and dune habitats. BLM is more involved in the community and fosters local stewardship of the coastal environment.

Bishop Paiute Tribe Natural Resource Education and Training Program – Engaging Youth

In partnership with the Bishop Paiute Tribe, Inyo National Forest and Friends of the Inyo (FOI), the BLM Bishop Field Office developed and implemented a program to offer tribal youth an educational and career development experience. Bishop Paiute Tribe youth crew interns led by Tribal youth crew leaders participated, gaining hands-on experience through field courses and project work on a variety of projects on BLM and Forest Service lands.

This program contributes to meeting the need for improving employment and training opportunities for the American Indian community in the Eastern Sierra. Federal agencies will benefit by recruiting American Indians into the Federal workforce to better represent diversity in this area. The program strengthens Tribal connections with the management of natural resources and relationships with Federal agencies.

California Conservation Corps

Through an assistance agreement with California Conservation Corps, a state agency, BLM-California provides disadvantage and minority youth, 18-25, work and a conservation experience. The work involves cross-country hiking over rough terrain and camping with Field Office

employees, to accomplish habitat and riparian restoration work. Participants may be provided information on natural history, geology and ecology as well as the challenges land and wildlife management face.

Participants receive a stipend, environmental education and training in natural resource work which may be the first step to a career.

Los Angeles Conservation Corps

Through an assistance agreement with Los Angeles Conservation Corps, BLM-California provides at-risk youth, 18-24, with opportunities for job skills training, education and work experience. Corps members work on fire fuel reduction, trail building and maintenance, habitat restoration and erosion. Most LACC youth teams are assigned to conservation projects in the Participants receive a stipend, develop self-esteem and gain skills that may lead to self- sufficiency and a newfound love of nature.

Student Conservation Association

Through an assistance agreement with the Student Conservation Association, which actively recruits from environmental justice populations, BLM provides opportunities for the SCA volunteers to be involved in a variety of projects. Self-sufficient crews camp on-site and move seasonally between higher and lower elevations to accomplish work. The BLM-California Desert District field offices have worked with the SCA's Desert Restoration Corps (DRC) to conduct desert restoration in Wilderness areas of Southern California which has facilitated the restoration of thousands of acres of desert habitat.

BLM provides training to increase crew members' resource skills and ability to compete for future natural resource jobs. BLM efficiently uses federal funds to manage NLCS lands and trains potential future land managers.

American Conservation Experience

Through an assistance agreement with the American Conservation Experience (ACE), which actively recruits from environmental justice populations, BLM provides opportunities for ACE volunteers to be involved in projects in wilderness areas on BLM-CA managed lands. Through this partnership, volunteers obtain skills, knowledge of conservation careers and work in culturally diverse areas.

Participants receive a solid grounding in conservation methods and skills gaining a more complete understanding of natural resource management while exploring possible career paths. Participants develop skills, self-confidence and a work ethic that can provide a base for future jobs.

Farmworker Institute of Education and Leadership Development Conservation Corps (FIELD)

BLM entered into a partnership with FIELD to provide trail and conservation work on public land.

Founded by Cesar Chavez in 1978, FIELD's mission is to "promote economic and social prosperity in rural communities for Latinos, working people and their families," and is committed to effect positive change in rural communities. The BLM partnership was initiated with conservation work in the BLM's Ridgecrest Field Office area.

Participants receive funding, develop self-esteem and gain skills that may lead to careers and further education and training.

Volcanic Tableland Cooperative Management

Through a Memorandum of Agreement (MOA), the BLM Bishop Field Office and the Bishop Paiute Tribe (Tribe) continue their cooperative management of the BLM Volcanic Tablelands. A panel of BLM and tribal representatives meets quarterly to discuss ideas and concerns outside of the formal consultation process. The Tribe has prehistoric and historic connections with these lands and a direct interest in ensuring the land be protected from degradation and cultural properties be preserved. The area includes over 80 thousand acres of undeveloped BLM lands. This year saw a joint public archaeology outreach by BLM and the Tribe. Several joint projects designed for resource protection were also completed this year.

Tribes are more fully informed about federal projects, helped manage areas that are important to the Tribe and tribal perspectives are included on BLM interpretive panels. BLM garners a closer relationship with the Tribe, trains possible future land managers and realizes a cost savings.

Cahuilla Tewanet Research Project

A BLM Palm Springs Field Office partnership effort with tribal members of all ages from Agua Caliente, Morongo and Torres Martinez Bands of Cahuilla Indians to gain first-hand knowledge from Native Americans regarding stories and facts about the traditional uses of plants (i.e., food item, tool, clothing, shelter) and the Cahuilla language names.

This effort will document first hand stories about native uses of plants and Cahuilla youth can learn more about the ways their ancestors interacted with the environment.

Fitzhugh Creek Partnership

BLM Alturas Field Office's Fitzhugh Creek Project is a long-standing undertaking to keep the Creek healthy and functioning and to revive its lost ability to support wild trout. Crews from the American Conservation Experience and Cal Trout worked to improve livestock control fences and erosion control structures that are keys to creek restoration. At-risk and minority youths were engaged in a tangible, meaningful conservation project. Participants were involved in important maintenance activities such as maintaining fences, constructing and maintaining stream crossing structures, erosion control, juniper removal, survey and monitoring.

Underserved youth were provided employment, occupation skills, educational and career mentorship. BLM managers and staff were energized by tangible results and BLM overall benefits

from the work accomplished and the education of future natural resource stewards.

Hat Creek Youth Initiative

California Trout's Hat Creek Youth Initiative (HCYI) continued. Conservation job-readiness internships for at-risk and minority youths from disadvantaged rural and Native American backgrounds was also provided. This initiative engaged participants in hands-on conservation projects for the restoration of the Hat Creek Wild Trout Area in Northeast California. Participants focused on; pulling invasive weeds, learning about watershed restoration and completing snorkel surveys. The HCYI connected youth with government officials, researchers, tribal members and NGOs. Participants garnered an increased knowledge of natural resource management, career opportunities and job skills.

Underserved youth were given employment, increased knowledge of natural resource management, job skills, educational and career mentorship and connected to government officials, researchers, tribal members and NGO's. Stewardship and community engagement was fostered. BLM benefits by assisting in the creation of the next generation of watershed stewards.

Old Woman Mountains Wilderness & Preserve Partnership

The Native American Land Conservancy (NALC) and the Needles Field Office partnership manages, protects and preserves the endangered historic and biological resources in the area of Old Woman Wilderness that are of cultural importance to the Tribes of the area, while providing access for tribal members to enjoy the area and its resources in traditional ways. The partnership was founded on common management objectives including minimizing impacts to the land from cattle and Off Highway Vehicle (OHV) use. Projects are executed jointly and generally involve both public and Preserve lands. The NALC, with BLM assistance, harnesses grants to cover project costs, while BLM provides materials, equipment, and studies to comply with NEPA and National Historic Preservation Act requirements.

The public receives the benefit of being granted access to the Preserve under Preserve staff oversight. The BLM is able to conduct rehabilitation and reduce unauthorized entry into wilderness OHV incursion areas, while building upon relations of the BLM, NALC and Chemehuevi Tribes. Tribes have an area to visit where they can enjoy various natural and cultural resources that are considered important to those Tribes.

Friends of the Desert Mountains

A strong and active partnership with *Friends of the Desert Mountains* fosters promotional events, land stewardship and educational programs. Their focus is the Santa Rosa and San Jacinto Mountains National Monument, cooperatively managed with the US Forest Service. Over 9,000 volunteer hours contribute to weed eradication, open space clean up, education, and visitor center services. Events are held at the Monument Visitor Center for individuals of all ages. Children in the Indio Recreation Department (Indio, CA) Summer Camp Program are brought to the Monument for fun and learning about desert plants and animals and how they survive the intense

heat. In the *Building Healthy Communities* program, youth from the communities of Mecca and Coachella learn about Native American uses of plants, indigenous hunting strategies and night time fun -- including scorpion searches using ultraviolet lights.

A significant amount of conservation and environmental education is accomplished with local environmental justice populations that would not be possible with BLM and USFS staff alone. Public lands adjacent to rural communities are improved by clean-up efforts to remove unwanted debris and non-native invasive plants. As a non-profit Friends group, funds can be raised to support BLM programs and projects.

Outreach with Tribes (Multicultural Education) -- Outreach to Schools, Career Fairs, County Fairs, Local Community Groups

The Eastern States Tribal Coordinator conducts regular outreach activities including giving presentations to local schools, youth groups, and local community groups as well as sponsoring local Tribal performers for outreach events. He also works with state, local agencies and Tribes throughout the year with educational outreach programs.

These activities provide youth and underserved populations with access to information about natural and cultural resources, career opportunities and outdoor opportunities. BLM, Southeastern States District builds goodwill with those local Tribes and the local communities that attend the events by enhancing understanding of the natural and cultural resource treasures on the public lands as well as ongoing efforts to preserve those resources on private lands.

Regional Tribal Consultation Meetings

The Eastern States Tribal Coordinator regularly participates at regional Tribal meetings throughout the year with both removed Tribes and Tribes that are still in the Southeast Region, along with some of the Northeastern Tribes in attendance. These meetings are important for BLM Eastern States to keep abreast of Tribal issues of concern. These meetings also allow for discussion of issues of interest such as minerals development, resource management planning, and the new BLM Draft Consultation Manual.

Benefits include early and comprehensive involvement with the Tribes to review proposed BLM actions in the Southeastern District, which leads to mutually understood and clearly stated processes designed to gain Tribal viewpoints and address Tribal concerns.

Memorandum of Understanding with the Lac du Flambeau Band of Lake Superior Chippewa, the Case Family, and the BLM

This MOU allows for cooperative management of a tract of BLM-administered lands in northern Wisconsin between the BLM and Lac du Flambeau Band. Ethnographic research shows that members of the Band have been collecting wild rice for over 200 years, using the adjacent Case family property to access the tract for the last 80 years. The tract has been determined by the BLM to be a Traditional Cultural Property eligible for listing in the National Register.

The MOU allows for the Lac du Flambeau to collect rice as they have for several centuries while cooperatively managing the area with the BLM.

Challenge Cost Share Agreement between the Bois Forte Band of Chippewa and the BLM

Through this agreement the BLM provides the Bois Forte Heritage Center (BFHC) $10,000 yearly to monitor archeological sites on BLM-administered islands in Lake Vermilion, northern Minnesota. The BFHC visits the sites twice a year, once both before and after the summer season, to monitor any damage to the sites from erosion, looting, and recreational use.

The Bois Forte Band takes an active role in the management of archeological sites in their ancestral territory while allowing the BLM to carry out their duties for the monitoring and protection of cultural resources. The agreement also provides a stipend to any volunteers who assist the BFHC in monitoring the island. The BFHC is planning to take elders and tribal youth to the islands during monitoring as an educational experience.

Day of Service – Shoshone-Paiute Tribe, Duck Valley Indian Reservation

BLM-Idaho State Director Tim Murphy and Associate State Director Peter Ditton joined BLM employees and members of the Shoshone-Paiute Tribe for a work day on June 20 at the Duck Valley Indian Reservation, located in southern Owyhee County, Idaho and northwestern Elko County, Nevada. About 20 volunteers installed weed barrier, spread more than 100 bags of sand and placed pavers to create a permanent floor in one of the on-site greenhouses.

This greenhouse is one of three built through a cooperative agreement with the Tribe and BLM. Since 2006, the BLM has been partnering with southern Idaho's Shoshone-Paiute Tribe to meet a critical need for native plant seedlings in the state. These greenhouses are used to grow native plants for restoration and rehabilitation of sage-steppe habitat on public lands devastated by wildfire. In 2008, BLM planted about 1.2 million pounds of seed, provided by the Shoshone-Paiute Tribe.

Signing of MOU on Tribal Consultation – Shoshone-Paiute Tribe, Duck Valley Indian Reservation

On July 13, 2015, the Shoshone-Paiute Tribes (SPT) and the Bureau of Land Management (BLM) in Idaho signed a Memorandum of Understanding (MOU) for a continued working partnership in the management of public lands that have special geographical, historical, and cultural significance to the Tribes. SPT Chairman, Lindsey Manning, and BLM Idaho State Director, Tim Murphy, presided at the ceremony on the Duck Valley Indian Reservation.

Director Murphy said, "We hope to continue this productive and respectful partnership between sovereign nations for years to come. The Shoshone-Paiute Tribes are our partners in managing public lands in Idaho for all Americans."

Crow Tribe Facilitation of Regional Intertribal Workshops

An agreement was created with the Crow Tribe for the purpose of facilitating regional Intertribal Workshops and meetings for Montana and North/South Dakota. The BLM and Crow Tribe of Indians agree that the scope of the project is for the Crow Tribe of Indians to serve as the "host" for regional intertribal workshop meetings.

These efforts support the following goals: Goal 1- Ensure responsible officials are aware of the provisions of EO 12898 and are able to identify and amend programs, policies, and activities under their purview that may have disproportionately high and adverse human health or environmental effects on minority, low-income, or tribal populations. Goal 2-Ensure minority, low-income, and tribal populations are provided with the opportunity to engage in meaningful involvement in the Department's decision making processes. Goal 3- identify and address environmental impacts that may result in disproportionately high and adverse human health or environmental effects on minority, low-income, or tribal populations.

Salish-Kootenai College (SKC) Student Internship Program

This agreement implemented a collaborative tribal college student internship program between SKC and the BLM Missoula Field Office. The internship will advance the education and experience of Native American students pursuing degrees in disciplines (forestry, hydrology, cultural, wildlife biology, etc.) associated with natural resource management. The internship would be for 12 weeks (mid-June through mid-September) during the summer field season.

These efforts aid and empower minority, low-income, and tribal populations in their efforts to build and sustain environmentally and economically sound communities.

Bridging the Divide Natural and Cultural Resources Field Camp for Tribal High School Youth

This year's field camp had 15 participants from the Shoshone-Bannock Tribes, including nine students, two student mentors, two elders, and two tribal chaperones. The focus of this year's camp was on the Sagebrush Steppe landscape, focusing on the Bitterroot plant. Students learned about the Sagebrush ecosystem and management and how native peoples used this environment to subsist. Participants were provided food and lodging at the Bender Center facility located at the historic Birch Creek CCC camp maintained by the Beaverhead-Deerlodge National Forest (BDNF).

Chief Dull Knife College and the Northern Cheyenne Tribe-Ecoregional Ethnographic Assessment

Chief Dull Knife College and the Northern Cheyenne Tribe are partnering with the Montana BLM to produce Ecoregional Ethnographic Assessments that can be integrated into developing ecoregional direction for the future management of public lands in Montana and the Dakotas. The pilot effort builds upon existing information to prepare an ecoregional ethnographic analysis of the Northern Cheyenne Tribe's aboriginal occupation and use of the Northwestern Plains and Middle Rocky Mountain Ecoregions. The goals of the study are to:

- document, evaluate, and map places of traditional religious or cultural significance to the tribe;
- identify culturally important plant and animal species, and their associated ecosystems, that are critical for the maintenance of Northern Cheyenne culture and traditions;
- delineate appropriate conservation elements; and
- assess the potential effects of identified change agents upon identified conservation elements.

These efforts aid and empower minority, low-income and tribal populations in their efforts to build and sustain environmentally and economically sound communities.

Apsáalooke Cultural Enrichment Committee Outreach

For the past several years BLM Montana has reached out to Crow Tribal elders that constitute the Apsáalooke Cultural Enrichment Committee by organizing and providing field trips to areas of historical significance to the Crow Tribe. This next year BLM is planning to work with the Custer/Gallatin National Forest. Planning is in progress.

These efforts aid and empower minority, low-income, and tribal populations in their efforts to build and sustain environmentally and economically sound communities.

Nevada Department of Corrections Prison Inmate Wild Horse and Burro Gentling Program

Wild horses and one wild burro, gathered from herd management areas within BLM administered public lands in Nevada, Utah, Wyoming, and California were saddle-trained for four months by inmate trainers, many of whom are from minority or economically disadvantaged groups. The trained horses and burros were offered to the public in a series of auctions.

The program provides the participants from the prison population an opportunity to give service and to engage in a positive, educational program in partnership with BLM.

Oklahoma-Kansas-Texas Joint Environmental Impact Statement/ BLM Resource management Plan Revision and BIA Integrated Resource Management Plan

The BLM NM-OK-KS-TX Oklahoma Field Office is working closely with the Bureau of Indian Affairs (BIA) to complete an environmental impact statement covering the of Oklahoma, Kansas, and Texas. Analysis in the EIS will support decision-making for both Federal and Indian lands and minerals in the states of Oklahoma, Kansas, and Texas (plus 1 county in Nebraska). Four federally recognized tribes are cooperators (Cherokee Nation, Citizen Potawatomi Nation, Muskogee Creek Nation, and Tonkawa Tribe of Oklahoma) for production of this RMP/EIS. In addition, the two regional offices of the BIA are partners in the EIS work on behalf of the 46 Federally recognized tribes in the three state planning area.

In FY 2015, the Oklahoma Field Office held two socio-economic workshops specifically for the tribes. These workshops were held before three public socio-economic workshops. Five tribes

were represented at the two tribe-only workshops: Choctaw Nation, Absentee Shawnee, Chickasaw Nation, Quapaw Tribe, and Muskogee Creek Nation.

The benefit of having tribes as cooperators on the OKT RMP planning effort is that BLM and BIA staff will be made aware of tribal concerns and issues around land and mineral resource management. This will help to ensure that the alternatives created address the issues that are important to the tribes, and enhance coordination in land and mineral management among the BIA, BLM, and tribes in the region.

Government to Government Consultation with Tribal Governments within the Albuquerque District

The BLM Albuquerque District has developed strong working relationships with several of the Tribal Governments during the past year. Meetings with several of the more than 19 Tribal Governments within the Albuquerque District took place in 2015 to establish a Tribal specific protocol to engage them in the BLM decision and analytical review process. The Albuquerque District realized that each Tribal entity possesses their unique process that is appropriate to engage them in the Government to Government consultation process. By specifically identifying the varying consultation processes the BLM hopes to establish stronger working relationships with the Tribes.

The process has allowed the Albuquerque District to engage Tribal Governments in a more acceptable and appropriate manner, which provides Tribes earlier and more open access to BLM decision makers and staff.

Oklahoma State University Native Explorer Group

The Native Explorer program is focused on getting college students of Native American descent involved in the sciences. Paleontology is one of the topics that participants are engaged in. Phil Gensler, the BLM NM/AZ/CA Regional Paleontologist, spoke to Native Explorers on field trips about fossils on public lands and job opportunities with the BLM, and also helped lead a paleontology field trip in New Mexico on BLM lands. The BLM Regional Paleontologist has been involved in this program since 2014. In 2015, approximately 15-20 Native Explorer students participated.

This program increases the awareness of Native American college age students about opportunities in the sciences in general, including opportunities with the BLM. The program also increases the awareness of Native American students about the variety and types of resources managed by the BLM.

BLM Partnership with Team Naturaleza

In 2013, BLM and Team Naturaleza (TN) teamed up to work together with the Latino community on a variety of projects in the Douglas Creek area, one of BLM's management areas closest to Wenatchee, Washington, with over 29,000 acres managed for recreation, grazing and wildlife

values. With Team Naturaleza acting as the community liaison between BLM and the Latino community around Wenatchee, a series of visits to BLM's Douglas Creek Management Area began. In 2015 BLM funded a summer intern, who worked with TN, BLM, and other agencies to lead a variety of bilingual environmental education projects in the North Central Washington area. These projects included bird walks, Douglas Creek cleanups and service projects, staffing of booths at the Wenatchee River Salmon Festival and the Leavenworth Bird Festival, assisting at a free fishing day event (2014), and collaborating on a National Public Lands Day event.

Having a trusted link to the local Latino community makes it possible to involve the local Latino population in a variety of public land activities. The BLM can manage with a better understanding of this group of local residents, who have not been involved much with public land management before.

BLM Partnership with the Oregon Zoo's Urban Nature Overnights Program

Since 2000, the Bureau of Land Management, the Oregon Zoo, and Portland's Parks and Recreation Department have sponsored Urban Nature Overnights (UNO). The program, which is designed to engage historically under-represented Portland area youth from 3rd to 5th grade in outdoor recreation and conservation, has provided camping trips for 4,561 urban youths, and school-year programming for 1,054 urban youths. In summer 2015 over 300 ethnically diverse, low-income, elementary-aged urban youth pitched tents at the Oregon Zoo and on nearby public lands, in a project which simultaneously employed 20 at-risk urban teens to serve as counselors and teachers. Many of the young participants frequently return as teens to mentor new students as counselors /teachers in the program under the Zoo Animal Presenters (ZAP) Program, a 3-year paid internship at the Oregon Zoo for low-income, multicultural teenagers.

This partnership helps connect kids and families with the natural world every day, reaching children who might not otherwise have access to the outdoors or the zoo.

BLM Partnership with the Inner City Youth Institute's Natural Resources Camp

Oregon BLM partners with the Inner City Youth Institute (ICYI) to sponsor Natural Resources Camp, an innovative mentoring program that enhances natural resource education. Through service learning opportunities that improve quality of life within their communities, youth develop an appreciation and understanding of the environmental, social and economic benefits of natural resources. ICYI serves underrepresented, underserved youth in grades 6-12 within the Portland Public School District and greater Metro Area.

Campers discover an array of career paths related to natural resource stewardship. Through field trips and hands-on activities, campers get an up-close look at the splendor of Oregon's natural resources.

BLM Partnership with the Resources and People Camp

Resources and People (RAP) Camp is a weeklong environmental education and career opportunity

program for underserved high school age students supported through the Bureau of Land Management, US Forest Service and US Fish and Wildlife Service, as well as extensive support through community organizations and Southern Oregon University. During the week of RAP Camp, high school age students attend hands-on sessions covering all aspects of natural resource management. Environmental issues covered include hydrology, wildlife/fisheries, invasive species, recreation, range, botany, wetlands, and many others.

The RAP program encourages high school students to pursue careers in natural resources. It is also an avenue to promote cultural diversity in the agencies and prepare students for the workforce of the future.

World Salmon Council Salmon Watch Program

Salmon Watch, an annual environmental education program, teaches underserved, urban youth about the importance of wild salmon conservation in watershed management. In FY15, 40 teachers and nearly 1,200 middle and high school students participated in the Salmon Watch program along rivers and streams managed by BLM and other federal agencies. Salmon Watch includes training for teachers and volunteers, classroom instruction, field trips to observe wild salmon spawning, and community service projects to benefit wild salmon and the watersheds in which they live.

The program gives teachers a path to bridge field experiences back into the classroom to facilitate science, technology, engineering and math (STEM) education for inner-city youth.

Earth Connections Camp

BLM Utah and its federal and state partners hosted two Earth Connections Camps, one focused on American Indian science and another on culture. About 30 American Indian students in grades K-12 attended the day-long sessions held at Red Butte Garden in Salt Lake City and the Youth Garden in Moab, Utah. BLM Utah teamed up with the Utah State Office of Education Title VII program to create the science- and culture-focused camps.

BLM'S Youth and Diversity programs provided staff, funding, and oversight related to logistics, curriculum development, location, and other implementation. Campers rotated among multiple stations led by American Indian educators and agency scientists. Activities included dam construction, engineering, hydrology, archaeology, history, language, and art. Participants learned about careers in public land and water management.

Camp LIA

BLM Utah teamed up with the outdoor leadership school SPLORE and Latinos In Action (LIA) to launch a successful new youth program: Camp LIA.

The participants' summer adventure camps included rock-climbing, canoeing, and conquering a ropes challenge course. Between 8-10 middle school and high school students signed up for each activity, and the LIA partnership quickly expanded to include Hi!Adventure (a Latino-serving

media organization), the Salt Lake Center for Science Education, and Utah State University. The students learned about college and career paths, natural resources, healthy lifestyles, and how and where to recreate safely outdoors.

The camp's goal is to create exciting opportunities for urban Latino youth to play, learn, serve, and work in Utah's great outdoors.

Nature High Summer Camp

Students spent time in the field with professionals to learn about the complexities of public land management. In addition, federal employees shared their expertise by providing actual field experiences in hydrology, rangeland conservation, wildlife biology, astronomy, soil science and forestry, giving participants a sense of the satisfaction and challenges of a career in natural resources management. In 2015 Nature High Summer Camp received a BLM Equal Opportunity Program Workforce Diversity grant supporting youth employment and education programs. 16 female campers received BLM scholarships.

In addition to learning about natural resources, campers completed a service project at the historic Great Basin Environmental Education Center.

Camp Yevingkarere

BLM Utah and partners welcomed 14 young campers from the Cedar, Kaibab, Koosharem, and Moapa Bands of the Southern Paiute Nation. The campers – mostly 5th and 6th graders – traveled from Utah, Arizona, and Nevada to spend the weekend camping on traditional homelands in Zion National Park. The campers stayed at Camp Yevingkarere, where Paiute elders and agency experts taught lessons in language, hydrology, wildlife biology, botany, rope-making and hide-tanning. This innovative and successful outdoor education program, in its seventh season, is made possible through a partnership that now includes federal land management agencies, Southern Paiute tribes, and Southern Utah University.

The students stay connected with their homelands, peers, and elders through the annual camps as they grow up. Through an award-winning partnership with Southern Utah University, federal agencies have also hired several Paiute college interns and employees who return to camp as role models and encourage young relatives and friends to seek federal employment opportunities.

Cultural Resources Protocol Agreement for BLM-Wyoming

The *State Protocol Agreement* between BLM-Wyoming and the Wyoming State Historic Preservation Officer, regarding the manner in which the BLM will meet its responsibilities under Section 106 of the National Historic Preservation Act and BLM's National Programmatic Agreement, was revised last year. BLM-Wyoming mounted a special outreach effort to all Indian Tribes with ancestral ties to Wyoming, providing them with the document and soliciting their comments and suggestions. BLM Wyoming continues to pursue similar agreements with these Tribes for improved Tribal consultation.

A sustained outreach effort to tribal governments helps assure that tribes can more effectively represent their interests regarding BLM-managed archaeological sites and materials.

Conservation Outdoor Recreation Education

Established 16 years ago, the Conservation Outdoor Recreation Education BLM partnership is with the Self Help Center in Casper, Wyoming. This summer youth program provides outdoor recreation and educational opportunities to underserved and disabled youth ranging in age from 8 to 18 that would otherwise be unavailable. The summer program consists of three to four trips located on public lands within Wyoming. All trips include elements of environmental education, recreation, volunteerism and teamwork. Projects include annual maintenance of recreation sites, reclamation projects, and trail building.

This program helps to provide accessible programs and recreational opportunities on public lands while instilling the values of land stewardship, environmental education, and separate participants from domestic violence.

Native American Youth Resource Crew

In 2011, the Lander and Casper Field Offices created a partnership with the Wind River Indian Reservation to hire a four person crew and crew leader with students from the reservation located in central Wyoming. The overall objective of this project was to establish a small-scale initiative to employ youth from the Wind River Indian Reservation.

The resource crew not only completes important work for the BLM, but is also exposed to roles and responsibilities of a federal natural resource agency. Very few Native American students know what the BLM does and the opportunities available to them. They have gained first-hand knowledge and experience in forestry, recreation, wildlife management, local history and stewardship of public lands.

BLM / Central Wyoming College (CWC) Native American Field School

In partnership with Central Wyoming College, BLM's Casper Field Office funds a summer Native American Field School, which focuses on recruiting underserved and economically challenged youth populations.

The archaeological field school not only accomplishes needed work for the Casper Field Office; it also educates low-income and minority youth to the mission and work of the BLM, potential careers in the federal work force, and the science foundations involved in cultural resource management.

U.S. Geological Survey
http://www.usgs.gov

USGS New York Water Science Center coordination with the Shinnecock Indian Nation, USEPA and IHS

Over the last year and a half, the USGS NY Water Science Center and the Indian Health Service (IHS) have been holding semi-annual meetings with the Shinnecock Indian Nation to coordinate activities and share groundwater information on a project to replace failing cesspools with properly constructed conventional septic systems to improve health and safety of Shinnecock tribal citizens. The IHS has also worked closely with the Shinnecock Indian Nation and U.S. Environmental Protection Agency to obtain additional funding to replace individual wells with public water connections. Construction on these new water service connections will begin in 2016.

Upper Columbia River Basin, Washington State

Sediment and soils in the Upper Columbia River Basin south of the border between Canada and Washington State may be enriched in metals due to historical releases of contaminants from upstream smelters that processed mineralized rock. The Spokane and Colville tribal lands are located in this watershed, and there are concerns that the metals may impact the health of humans and aquatic organisms. The USGS is part of a Department of Interior Technical Advisory Group (TAG) along with the National Park Service, U.S. Forest Service and the Bureau of Land Management that is providing basic information about metal concentrations in soils and river sediment, and how those metals may affect the health of aquatic organisms (e.g., fish, insects, and mussels).

East Fork of the South Fork of the Salmon River, Idaho

The U.S. Environmental Protection Agency (USEPA) proposed adding the East Fork South Fork of the Salmon River (EFSFSR) to its National Priority List due to contamination from historical activity in the Stibnite and Cinnabar mining areas The USGS Idaho Water Science Center has operated five stream gages on the EFSFSR near Stibnite since July 2011 to monitor stream water quality tributaries Meadow Creek and Sugar Creek. This monitoring found concentrations of arsenic exceeding human health-based water-quality criteria at all but one site upstream of historical mining activity. Similarly, concentrations of antimony exceeded human health-based water-quality criteria on the EFSFSR below the Stibnite mining area. Mercury concentrations exceeded Idaho ambient water-quality criteria at all five sites, with the greatest concentrations in Sugar Creek, a tributary downstream from the Cinnabar mine site. The Cinnabar mine site is being evaluated for further remediation by the USEPA in coordination with stakeholders, including current lease holder Midas Gold Corporation, the USDA Payette National Forest, the Nez Perce Tribe, and the Fish and Wildlife Service. A field study funded by the USGS Mineral Resources Program is conducting a study to better constrain sources and fate of mercury in Sugar Creek and its tributary Cinnabar Creek. This work conducted in cooperation with the Nez Perce Tribal Fisheries Resources Program includes a synoptic study of the EFSFSR watershed to determine specific source areas and extent of transport for metals from the Stibnite and Cinnabar Mine

sites. In addition to the synoptic study, a process-based study of mercury mobilization in water, sediment, and the biota is being conducted in Sugar Creek and tributary Cinnabar Creek in cooperation with the Payette National Forest. This study is an example of how resources from different USGS programs and interagency cooperation can be used to develop a more complete study to support land use decisions.

Studying A Uranium-Contaminated Groundwater Plume's Effects on Arapahoe Tribal Water Resources

In FY15, the USGS Wyoming-Montana Water Science Center, in cooperation with the Arapahoe Tribe of the Wind River Reservation, U.S. Department of Energy (DOE), USGS Branch of Geophysics, and the USGS Toxic Substances Hydrology program, initiated a project at the Riverton Uranium Mill Tailings Remedial Action (UMTRA) site located on the Wind River Indian Reservation. Legacy uranium ore processing activities at the site may be affecting groundwater (GW) quality and impacting the water resources of the Wind River Indian Reservation (shared by the Eastern Shoshone and Northern Arapaho tribes). USGS activities at the site in FY15 included the deployment and recovery of 2 km of fiber optic cable along the near-shore areas of the Little Wind River to identify discrete discharge areas where a uranium-contaminated groundwater plume is potentially entering the benthic zone. A workplan is currently being assembled for FY 16 activities that includes plans for (1) installation of seepage meters to quantify groundwater discharge at thermal anomalies identified by the fiber optic temperature survey; (2) assisting DOE/Office of Legacy Management with monthly QW and GW monitoring at the site; (3) sampling/analysis of invertebrate and microbial populations associated with benthic areas along the shoreline of the Little Wind River; and (4) additional fiber optic temperature surveys along the Little Wind River. The site also has the potential to serve as a long-term research site that will help to meet DOE's concerns about the unanticipated longevity of uranium plumes in groundwater at a number of the UMTRA sites throughout the western U.S. and USGS Toxic Substances Hydrology program's need for a "wet" uranium site to address their new emphasis toward uranium in the environment.

Trinity River Restoration

The Trinity River in northwestern California supports one of the Wests important salmon populations and has historically been an important resource to the life and culture of the Yurok and Hoopa Tribal Nation. The Trinity river and its salmon runs have been negatively impacted by extensive past dredging and placer mining, and mercury, used in gold mining, has been released throughout the watershed and bioaccumulated in the food web in the river. The Trinity River Restoration Program as a result of a Record of Decision is mandated to implement river restoration projects to increase the salmonid resource and restore the health of the river for use of Yurok and Hoopa Tribal Nations and other users of the river. The USGS continues to provide research and consultation to the Trinity River Restoration Program which is managed by the U.S. Bureau of Reclamation. USGS research has been used to minimize the release of mercury and methylation of mercury during river restoration projects and provide a scientific basis for future restoration projects. The river restoration projects have made a start in improving the significantly depleted salmonid resource, and restoring the river to its former health.

Native Youth in Science

For the fourth consecutive summer, the Native Youth in Science–Preserving Our Homelands (NYS-POH) summer science camp was presented by the USGS Office of Tribal Relations and the USGS Woods Hole Coastal and Marine Science Center, in collaboration with the Mashpee Wampanoag Tribe's Departments of Education and Natural Resources, the Waquoit Bay National Estuarine Research Reserve, the Woods Hole Oceanographic Institution, and the National Oceanic and Atmospheric Administration's Northeast National Marine Fisheries Science Center. Serving Mashpee Wampanoag students from grades 5, 6, and 7, the camp took place weekly during the month of July at various locations around Cape Cod, Massachusetts. Each day focused on a different topic of marine biology, geology, or environmental science relevant to the Mashpee Wampanoag homelands. In addition to the Western science perspective, Mashpee Wampanoag tribal culture provided traditional ecological knowledge, tribal language lessons, and discussions relevant to each day's topic. Over the last four summers, NYS-POH has been very important to the Mashpee Education Department in preparing students for more senior programs. A number of past NYS-POH students have graduated into the Mashpee Wampanoag Native Tribal Scholars program, which provides students with a taste of the college experience. NYS-POH has shown that it can assist in preparing Mashpee Wampanoag youth to utilize traditional and Western scientific knowledge in their education and in the future preservation of their traditional homelands.

Tribal Youth Workshop on Water

2015 was the second year that the USGS, in cooperation with the U.S. Forest Service's Mount Shasta Ranger District and the College of the Siskiyous in Weed, CA, provided a workshop on water resources to Native American youth with ancestral ties to Mount Shasta. Water is a critical resource in both terms of abundance and quality in northern California and an especial concern of Native Americans in the area. This workshop aims seeks to provide students and their mentors' background on water source, discharge, age, and quality information, both in the classroom and in the field so that they can use that information to better understand and manage this vital resource. The workshops have served students from the Pit River, Quartz Valley and Karuk tribes. Many of the Karuk and Quartz Valley students were interns for their respective Natural Resource Departments while some of the Pit River students were interns working on restoration projects with the non-profit organization California Trout. In addition to classroom lectures on the water cycle and quality, students collected water quality data from the Big Springs-reach of the upper Sacramento River and then analyze their data in the computer lab. The workshop was supported with funding provided by a USGS Technical Training in Support of Native American Relations (TESNAR) Program grant from the USGS Office of Tribal Relations.

USGS testing for highly pathogenic avian influenza viruses through a tribal health network in western Alaska

Nearly 60 rural communities and 25,000 residents (with most being Native Alaskans) reside within the Yukon-Kuskokwim Delta region of western Alaska. Many of these residents rely solely or substantially upon local and wild natural resources for food. As a result, the health of the human

population is integrally tied to the health of wild animal and plant species in this region. Alaska has a network of Alaska Native tribal health clinics that promote healthy lifestyles, monitor for environmental and human health change, and provide mechanisms of adaptation to changes. On the Yukon-Kuskokwim Delta, the consortium is the Office of Environmental Health and Engineering at the Yukon-Kuskokwim Health Corporation (YKHC), which administers a comprehensive health care delivery system for 58 rural communities in western Alaska. Outbreaks of highly pathogenic H5 avian influenza began in November of 2014 in North America and continued through the summer of 2015. Several research publications found evidence via genetic and migratory bird pathways that the highly pathogenic avian influenza (HPAI) viruses were introduced by wild birds through Alaska. This pathway has been demonstrated in previous USGS research using low pathogenic viruses as a model. These models predict that additional virus movement will continue between Alaska and Asia via migratory bird flyways and USGS concluded that western Alaska is a hotspot for introductions of Asian-origin viruses. The USGS began collaboration with the YKHC to sample over 1,000 migratory birds in spring 2015 and over 200 birds in the fall of 2015 to determine if HPAI was in sampled birds and if low pathogenic viruses carried precursor genes of the HPAI strains. This research also allowed for a platform to inform local residents about avian influenza, the lack of evidence for the virus being transmitted to humans, and for additional conversations to take place about wildlife and environmental health.

Elwha River Restoration Benefits Tribes

Since the 2012 completion of the removal of the Glines Canyon and Elwha Dams, the Elwha river is once again flowing in its natural channel. Spottings of Steelhead, Coho and Chinook have increased, with predictions that recovering salmon populations will benefit the river's whole food web. Additionally, sediment once trapped behind the dams has travelled downstream rebuilding banks and gravel bars along the course of the river and establishing significant beach and nearshore habitat at the mouth of the river. These changes are predicted to benefit terrestrial species and those in the nearshore. All of these changes are of significance for the Lower Elwha Tribe in reestablishing species of significance culturally and for sustenance. USGS has completed and currently has underway a number of projects related to the restoration effort.

Keweenaw Bay Indian Community (KBIC)

USGS is working cooperatively with the Keweenaw Bay Indian Community (KBIC) in the Upper Peninsula of Michigan to determine current water-quality, hydrologic, and ecological conditions of the Yellow Dog and Salmon Trout Rivers in the Yellow Dog Plains area which may have been degraded by mining activity, road construction, and other related human development. The primary objectives of this cooperative project are to assess streamflow and groundwater inputs to the Yellow Dog and Salmon Trout Rivers; concentrations of selected water-quality contaminants such as metals and nutrients; and sediment. The study will help to determine if water quality and hydrology are changing with human development in the area.

Stillaguamish Tribe of Indians

USGS is working with the Stillaguamish Tribe of Indians in northwestern Washington to assess emerging contaminants possibly associated with wastewater effluent from the Cities of Arlington and Stanwood. There is concern of possible chronic effects on fish and wildlife from low-level environmental exposure to emerging contaminants and with mixtures of these compounds that may have synergistic toxic effects. There is now substantial evidence that some of these compounds impact the endocrine systems of fish and wildlife, influencing hormonal and reproductive functions. A screening completed in September 2008 did not allow for source identification of the detected contaminants. This cooperative study will help to identify the type and magnitude of emerging contaminants present in a sample of the springtime wastewater effluent from the City of Arlington and City of Stanwood waste water treatment plants discharging to surface waters of the Stillaguamish watershed and provide a baseline for future comparisons to effluent after facility improvements to the waste water treatment plants.

Fort Peck Indian Reservation

USGS is working with Fort Peck Indian Reservation in northeastern Montana to delineate brine contamination in and near the East Poplar oil field. As indicated in a previous USGS study (2014) with the Fort Peck Indian Reservation, the likely source of brine contamination in the shallow aquifers is brine that is produced with crude oil in the East Poplar oil field study area. Brine contamination has not only affected the water quality from privately owned wells in and near the East Poplar oil field, but also the city of Poplar's public water-supply wells. The extent of brine contamination in the shallow aquifers in and near the East Poplar oil field is as much as 17.9 square miles and appears to be present throughout the entire saturated zone in contaminated areas. The brine contamination affects 15–37 billion gallons of groundwater.

Shoshone Paiute Tribes of the Duck Valley Reservation

USGS is working with the Shoshone Paiute Tribes of the Duck Valley Reservation in Idaho to assess mercury concentrations in sport fish populations in three lakes (Mountain View, Billy Shaw, and Sheep Creek) on the reservation. Atmospheric deposition from the global mercury pool and specifically, emissions from gold ore processing and production sources in Nevada, have the potential to cause increased mercury contamination in the Tribes' fishery, affecting yellow perch, bass, and rainbow trout. Study findings will be compared to water quality criterion set by the U.S.Environmental Protection Agency to determine if there is a human health risk.

Kootenai Tribe of Idaho

USGS is working with the Kootenai Tribe of Idaho to evaluate streamflow and sedimentation conditions in the Kootenai River that may be affecting the sustainability of white sturgeon. The cooperative study will help to evaluate changes in hydrologic and sediment conditions that have been caused by the construction of Libby dam and other alterations to the natural stream systems. The study will also help in the development of tools to assess the feasibility of remediation scenarios used to enhance the white sturgeon spawning substrate and habitat.

Sisseton-Wahpeton Oyate Tribes

USGS is working with the Sisseton-Wahpeton Oyate Tribes associated with the Lake Traverse Reservation wetlands in South Dakota and North Dakota to reassess pesticides in wetlands. The study revisits a 2006 assessment of agricultural pesticides, such as alachlor, atrazine and 2,4-D in the wetlands. More than 80 percent of the land use within the Lake Traverse Reservation is for grain production, pasture, or hay, and more than 11 percent of the area is covered by surface water in the form of wetlands, lakes, and streams. Pesticides are used mainly to control weeds (herbicides) and insects (insecticides) on crops. Pesticides can persist in natural aquatic systems and have long-term effects on biota.

Blackfeet Nation

USGS is working with the Blackfeet Nation in Montana to provide technical assistance and training on groundwater monitoring and water quality sampling. In the past three years, oil and gas exploration and development has increased dramatically on the Blackfeet Reservation, primarily in the Bakken formation and adjacent units. Efforts are focused on the development of a groundwater monitoring plan to address both water quality and quantity issues for the reservation. The addition of groundwater data to the existing surface-water monitoring program would help the Blackfeet Nation to identify: (1) current groundwater and surface water conditions; (2) instances of groundwater or surface water contamination; and (3) any unexpected or unnatural decline in levels of ground or surface water.

Tucson/South Tucson, Arizona

Industrial activity at Air Force Plant 44 (AFP 44), a manufacturing facility located on property owned by the U.S. Air Force and operated by a major defense contractor, resulted in extensive contamination of groundwater with organic compounds. The sole-source regional aquifer underlying AFP 44 provides water for municipal, commercial, private, and industrial supplies for the City of Tucson, the municipality of South Tucson, adjacent areas of Pima County, and the Tohono O'odham Nation. The population of the area most severely impacted by contamination is predominately low income and of Hispanic origin. The area has been designated the Tucson International Airport Area (TIAA) Superfund Site and the U.S. Air Force was given the responsibility for cleanup activities for part of the site. The USGS Arizona Water Science Center has assisted the U.S. Air Force in their oversight of cleanup activities since 1987. USGS activities in the area include initial and subsequent hydrogeologic investigations of the nature and extent of groundwater contamination, annual groundwater sampling for 1,4-dioxane and chromium, providing unbiased technical assistance, and outreach activities at quarterly public meetings. For more information, see http://az.water.usgs.gov/projects/9671-APP/.

USGS Activities in Urban Waters Federal Partnership (UWFP) Pilot Locations:

Patapsco River Watershed, Baltimore, MD

The USGS is working with the Baltimore City Department of Public Works to develop a monitoring strategy that will help demonstrate improvements in water quality and mitigation of

peak stream flows in areas that have had restoration or best management practices applied. A draft monitoring strategy is being reviewed by the Baltimore City staff and will soon be shared with the other partners for review and comment.

In partnership with the Baltimore-Patapsco Partnership, plans and actions have been developed in four topical areas including, 1) local restoration and best management projects, 2) spatial mapping information and tools, 3) the Green Pattern Book (guidelines for implementing green infrastructure and different types of greening projects), and 4) monitoring, modeling, and research. A subcommittee in each of these topical areas has been formed. Full partnership meetings are held quarterly to coordinate among all partners, and to report back on progress within the subcommittees. The USGS, MD-DE-DC Water Science Center participates actively on the monitoring, modeling, and research subcommittee, with goals of enhancing communication between partners on monitoring needs, and water-related issues such as improved water quality in urban areas, flood hazards, and water supply. This project is attempting to work with many partners to develop a long-term plan for integrated monitoring.

Harlem-Bronx River Watershed, NY

The USGS NY Water Science Center Coram Office has compiled 100+ years of water-quality data related to the Harlem River from a variety of sources, including the NYC Environmental Protection, Riverkeepers, Inc. and EPA STORET. The water quality data were being summarized in a report and evaluated for trends. The report was being reviewed in FY2015 for publication as a DOI/USGS Open File Report.

Since 2011, the USGS has been participating in the annual Harlem River Festival, an event which has grown into a two-week-long, borough-wide outreach effort that brings the local communities together through educational activities. The USGS and BCEQ continue to work with faculty and students from minority serving institutions (such as Eugenio Maria de Hostos Community College, Lehman College [CUNY], and Borough of Manhattan Community College) to help collect and interpret water-quality information and sustain green infrastructure projects.

USGS is working with the Bronx Council for Environmental Quality to better understand the current quality of the stormwater runoff and how much pollutant loading to Harlem River will be reduced by an innovative pop-up wetland. The goal is to better understand the types and relative concentrations of roadway contaminants that drain from the Major Deegan Expressway into the Harlem River. Results will provide a metric for accounting the amount of contaminated runoff captured for design and establishment of a recreational park at Pier V along the Harlem River near Yankee Stadium in the Bronx, N.Y. The USGS will continue to be involved in scheduled community outreach programs at the site. The New York Water Science Center, along with support and equipment from the North Carolina and Massachusetts Water Science Centers, has contributed monitoring this to this pop-up wetland.

South Platte River, Denver, CO

Through the Water Quality Working group, the USGS is tasked with developing assessments of key water quality parameters utilizing data from several partner organizations. The expected

product will be a web based tool for linking a question (i.e., is it safe to swim in the South Platte at Confluence Park?) with information about particular contaminants of concern, and ultimately with summaries of the raw data. The group surveyed partners, accumulated data, and checked data for quality. The group started work on the template for the first contaminants to be assessed, which will be E. Coli and selenium.

The USGS is redeveloping a degraded detention pond into a destination natural area in an underserved Denver neighborhood. This project will educate the community about the sources, fate, and threats to the water their communities depend on. Project activities include removing 1 acre of invasive plants, educating 265 community members, planting 10 trees, engaging 150 volunteers, removing 30 pounds of trash, and educating 200 students.

The USGS is developing a plan to improve water quality and education the public about the water quality of Bear Creek. Develop and watershed protection plan. A key component of this project is the Master River Steward Job Training program which will engage youth from Denver and Sheridan. These stewards will participate in water quality sampling and engage the broader community through education, outreach, stewardship activities, and recreation activities in the watershed.

Philadelphia, PA (Chester, PA; Wilmington, DE; and Camden, NJ -- DE River Watershed)

For the past five years, the USGS Science and Decisions Center and the University of Pennsylvania's Wharton School have been involved in collaborative efforts through the Spatial Integration Laboratory for Urban Systems (SILUS) to link USGS science to decision making for analytical solutions. This collaborative effort recently expanded its direction to emphasize ecosystem services in urban studies. The USGS is working with the Wharton School to develop a research agenda on topics related to urban ecosystem services and America's Great Outdoors including urban waters. Studies relating to urban forests, green infrastructure, criteria for coastal storm protection (in partnership with USEPA), and incentives for urban ecosystem services (in partnership with USDA) are being assessed and / or developed.

Kansas City, Missouri (Middle Blue River)

Digital flood-inundation maps for the Blue River and its tributaries Brush Creek, Indian Creek and Tomahawk Creek were created by USGS in cooperation with the City of Kansas City, Missouri and Overland Park, Kansas. The Blue River and its tributaries flow through the middle of the Kansas City metropolitan area and flooding in the Blue River basin has caused millions of dollars of damage and resulted in the deaths of over 26 people in the last 28 years. The flood-inundation maps, accessed through the USGS Flood Inundation Mapping Science Web site at *http://water.usgs.gov/osw/flood_inundation/*, depict the spatial extent and depth of flooding corresponding to selected water levels at 18 streamgages and associated stream reaches in the Blue River Basin and is one of the largest single USGS flood inundation mapping efforts in the nation. Near-real-time stage data may be obtained from the USGS National Water Information System at *http://waterdata. usgs.gov/* or the National Weather Service Advanced Hydrologic Prediction Service at *http://water.weather.gov/ahps/*. The USGS Flood Inundation Mapping Program focuses its efforts at state and local levels to help communities understand flood risks and make cost-

effective mitigation decisions. The availability of real-time inundation maps will increase the awareness of flood risks and help protect the lives and property of those who live, work, and play along the Blue River.

Hydrologic Extremes and Aeolian Ecosystem Thresholds on Native lands

Drought in arid and semi-arid regions is often concurrent with the deterioration of surface vegetation and the destabilization of sand dunes, jeopardizing infrastructure and rangeland productivity. The USGS studies of drought and climate change impacts on sand dune deposits of the Navajo Nation have shown that some residents are currently faced with periodic transportation problems from sand and dust storms during windy conditions. Dusty conditions are also deleterious to human health, and have been known to cause dust pneumonia and conditions such as valley fever- the literature on fungi and bacteria in dust that can affect human health is a growing field of research, and new forms of illness from dust inhalation are being uncovered. Sand and dust problems are especially acute for residents located downwind of dry lake beds or on the sand dune deposits on the downwind sides of dry streams or washes where the supply of sediment is higher. Residents in the Teesto, Tonalea, Tuba City, Monument Valley, Many Farms, Round Rock, Lukachukai, Mexican Water, Kayenta and Tolani Lake chapters have the highest risk of infrastructure damage from moving sand dunes.

The USGS is researching Hydrologic Extremes and Aeolian Ecosystem Thresholds on lands of the Navajo Nation and is conducting field experiments on the effects of various types of vegetation on wind erosion. Because the annual invasive tumbleweed plant (Salsola) does not shelter areas from wind erosion during the spring windy season, USGS researchers are also experimenting with methods for the reintroduction of native grass species and removal of Salsola, in order to determine the conditions and methods required for rangeland restoration projects to be effective. Additional plans include developing new models and maps that can be used to identify areas most susceptible wind erosion during dry, windy conditions, thus improving the ability to predict wind erosion susceptibility as temperatures increase.

South Central Climate Science Center Tribal Activities

The South Central Climate Science Center (SC CSC) seeks to assist tribes by hosting interactive training classes to build tribal climate science capacity. This has included 16 classes held in Oklahoma and New Mexico on topics such as Climate 101, Vulnerability Assessments, Environmental Problem Solving with GIS, Adaptation Planning, Grant Writing. The SC CSC has also funded and partnered on several research projects that will enable tribes to better develop water plans and drought management plans (there have been three such projects funded). The development of tribal youth in the STEM fields is a priority for the SC CSC. Staff at the SC CSC have conducted seven tribal youth programs that entail hands-on activities related to climate change. These programs and demonstrations have been taken to schools, tribal festivals, and youth camps. Staff at the SC CSC have mentored five tribal interns, who have worked on projects related to wind energy efficiency, development of cultural scenarios to be used in vulnerability assessment training activities, and on other tribal and climate-related projects. The SC CSC is currently developing partnership with other agencies to work together on the development a climate

curriculum for tribes. This tribal outreach strategy was published in USGS Circular 1396, entitled "Tribal Engagement Strategy of the South Central Climate Science Center, 2014"

USGS New York Water Science Center (NY WSC) and Shinnecock Indian Nation

The Shinnecock Indian Nation's lands are located in a coastal environment where bay and wetland health are closely related to changes in the amount and quality of groundwater being discharged to the surrounding water bodies. Oyster fisheries and other marine ecosystems are critical to the livelihood of many tribal members and are vulnerable to contaminated groundwater entering the embayment. Additionally, many tribal members use domestic-supply wells that tap the surficial aquifer beneath the Reservation as their primary source of potable water supply. Contamination of the surficial aquifer from flooding during intense coastal storms, projected sea-level rise, nutrient loading from fertilizers, and septic effluent have been identified as potential sources of human and ecological health concerns on tribal lands. To assist the Shinnecock Nation, two research projects were undertaken by the USGS New York Water Science Center (NY WSC) assess the effects Hurricane Sandy and past water-management practices have had on tribal lands, to provide a baseline for comparison to future storms and sea-level rise, and to assess the success of ongoing resiliency work on the Reservation. These projects are part of the science plan, "Meeting the Science Needs of the Nation in the Wake of Hurricane Sandy—A U.S. Geological Survey Science Plan for Support of Restoration and Recovery," that also identifies data and information needs to prepare for the next storm. The first project was developed to characterize the movement and distribution of shallow groundwater beneath the Reservation and identify sources of potential contamination to the surficial aquifer and to coastal ecosystems. High resolution water-level contour and depth-to-water maps along with a provisional assessment of the shallow groundwater-flow system are being developed. The results of this study will provide the Tribe's Natural Resource Team, cooperating governmental agencies, and other stakeholders with the information needed to assess the vulnerability of the Reservation's coastal ecosystems and potable-water supply.

The second project was developed to evaluate key human- and ecological-health concerns related to transport and persistence of contaminants on Shinnecock tribal lands resulting from tidal inundation caused by Hurricane Sandy, as well as to establish a benchmark ahead of future storms and accelerating sea level rise. Shallow groundwater was sampled from observation wells and temporary hand-driven piezometers, tissue samples were taken from farmed oysters, and bed sediment samples were collected from oyster farms and marshes on the Reservation that were inundated during Hurricane Sandy. Samples are being analyzed for various environmental chemistry parameters to provide data to support decision making by increasing an understanding of longer-term storm-related impacts and associated contaminant threats to human health and ecosystems.

The USGS NY WSC also provided training to the Shinnecock Nation using funding provided by a USGS Technical Training in Support of Native American Relations (TESNAR) Program grant from the USGS Office of Tribal Relations. The training provided the Tribe with field-data collection training as well as geographic information system (GIS) dataset creation and analysis. The course focused on the Tribe's data needs such as groundwater levels, water-quality

parameters, surveying of oyster beds, and mapping of other coastal resources.

Northwest wetland and climate modeling

The USGS Western Ecological Research Center works with coastal tribes in the Pacific Northwest and is conducting on-the-ground research on tribal lands. The climate science program has identified tidal marshes vulnerable to sea-level rise and conducted workshops for the Nisqually and Skokomish Tribes where results were presented on loss of these habitats under climate change scenarios. Furthermore, precipitous declines in threatened Nisqually Fall Chinook related to record high temperatures and low snowmelt during summer 2015 have illustrated how vulnerable this prized cultural resource and livelihood is to changes in climate, highlighting the importance of wetland monitoring and climate modeling. The restoration science program jointly worked with the Nisqually Indian Tribe to document that large river delta restorations have increased rearing opportunities and suitable habitat for salmonids, and that as the restoration progresses, water temperatures in restored channels are becoming cooler as the channels deepen.

NATIONAL PARK SERVICE (NPS)

http://www.nps.gov

Boy Scouts of America

The National Park Service (NPS) and Boy Scouts of America (BSA) have been partners from the beginning; through campouts, hikes, and volunteerism, tens of millions of scouts have experienced and supported their national parks over the past 100+ years. For more than 100 years, the NPS and BSA have made a concerted effort to instill the values of resource stewardship and conservation to our nation's youth through the Scout Ranger Resource Stewardship Program and other collaborative efforts.

Heathy Parks, Healthy People

Cape Cod National Seashore partnered with Cape Cod Healthcare (CCH) this summer to begin a Healthy Parks, Healthy People program to encourage more people to use the park as a place to improve health and wellness. The initial focus of the partnership is to raise awareness of the greatest health risks and introduce an easy, powerful antidote to heart disease –a nice walk in the woods. The medical staff of Cape Cod Healthcare, along with park staff, developed a variety of experiences to get people walking on park trails, tracking their progress along the way. Both organizations leveraged resources, working towards the common goal of a healthier community. The summer's walking program concluded for the season with an outdoor event

to celebrate the success of the new partnership and rewarded several walkers who made the most progress by lowering blood pressure and weight.

Throughout the summer, medical professionals were in the park five days a week at one of the trailheads to help visitors track blood pressure, body mass index, and weight before and after each walk. Dr. Elissa Thompson, Cardiologist with CCH, served as the Medical Director for the program and provided visitors with accurate health and wellness information. Walkers received a passport when they signed up for the walking program in order to track progress, and then they received a stamp in the passport for each completed trail. More than 170 people signed up for the free walking program in its inaugural year. Over the course of the program, one participant lost 20 pounds, while another walker decreased their blood pressure by 83 points.

The seashore also developed and highlighted "health focused" ranger-guided programs, such as yoga on the beach, bike tours, and cardio hikes. The most successful new interpretive program related to the Healthy Parks, Healthy People initiative was a family-oriented program patterned after the popular television show, "American Ninja Warrior." Participants navigated an obstacle course inspired by the historic Lifesaving Service of Cape Cod. The course required strength, agility and problem-solving for completion. Along the way, participants learned about the value of the national seashore as a place where history and nature are preserved, and recreational opportunities abound.

Kids in Kayaks

With funding from the Baltimore National Heritage Area, "Kids in Kayaks" will provide 500 eighth graders the opportunity to go kayaking, many for the first time, in their hometown. The students will paddle in the fall, and again in the spring, for a total of 1,000 kayak experiences.

This first event brought over fifty students and three teachers to Middle Branch Park on the

Patapsco River, just across the Inner Harbor from downtown Baltimore. The city's Department of Recreation and Parks provided all kayaks, paddles, life vests, and instructors, plus the excellent facilities at the park. Each student learned how to safely launch a kayak and maneuver it over a one-mile course along the shoreline.\\n\\nWhile half the group was on the water, the other students visited activity stations about the Chesapeake Bay's cultural, ecological and historical heritage. Rangers from Fort McHenry National Monument and Historic Shrine described the action in Baltimore during the War of 1812. Students practiced "signal communications" using 19th century nautical flags in an activity provided by the Star Spangled Banner Flag House. Rangers from the Captain John Smith Chesapeake National Historic Trail engaged students with an activity comparing trash middens from the 17th Century to modern times. CAJO rangers also helped students compare the decomposition rates of common trash items they might see while paddling.

The goal of the Kids in Kayaks program is to show the next generation how to enjoy the resources in their own hometown, and to encourage an ethic of stewardship for that resource. On this day, 50 students enjoyed an outdoor education experience and made their own connections to nature. In the spring, they get to do it again! Program partners include the Baltimore National Heritage Area, the Captain John Smith Chesapeake NHT, the Star-Spangled Banner NHT, Fort McHenry National Monument and Historic Shrine, the Maryland Zoo, the Star Spangled Banner Flag House and Baltimore City Recreation and Parks.

Ticket to ride

In the spring of 2015, Chickamauga and Chattanooga National Military Park, through Eastern National, presented a check to the Catoosa County Department of Education in order to assist with transportation costs associated with bringing students to visit the park. The park provides curriculum-based education programs for several thousand students every year, included several hundred students from Catoosa County, Georgia. Many of the local schools would be unable to visit without some transportation assistance. This is where Eastern National, a partner of the National Park Service, stepped in to fill a much needed void. With Eastern's generous donation to the local school system, teachers can now request funding assistance to bring students to "THEIR" local national park.

America’s Best Idea Grant Empowers Youth at San Antonio Missions NHP

San Antonio Missions National Historical Park used an America’s Best Idea Grant from the National Park Foundation to develop a new education program combining recreation, education, and history during a half-day experience in the city’s national park. NPS, the San Antonio River Authority, Los Compadres de San Antonio Missions, San Antonio Bike Share, and the Alamo Area Master Naturalists all played a part in providing activities to encourage lifelong stewardship of parks and their resources.

Students got the chance to participate in four interactive activities illustrating the natural, historical, and recreational connections between the Spanish colonial historical resources and the San Antonio River, which was once the lifeblood of the missions. During the inaugural six-day program, activities took place at Mission San Juan and the newly restored Spanish colonial farm, where students learned about the Missions' role in San Antonio's history, the ways people farmed during the Spanish colonial period, how to identify some of the area's native vegetation, how the San Antonio River is managed, and ways to use GPS technology.

And getting there was half the fun! Students rode the newly developed San Antonio River Bike Trail, which NPS staff from the Rivers, Trails, and Conservation Assistance program helped plan over several years, and used bicycles provided by the B-Cycle bike-share program. Becoming familiar with the B-Cycles and with the 17-mile trail connecting all these places could be what brings these young adults back again for a lifetime of enjoying and appreciating the nature and history of their home city.

BIO Blitz – NPS and National Geographic Society

Since 2007, the National Park Service has teamed up with the National Geographic Society (NGS) to host "Bioblitz," an annual biodiversity and youth engagement event that takes place in a different national park each year. Each year, the public is invited to get involved identifying and documenting the diversity of living creatures found in the host park.

BioBlitz 2015 in Hawai'i Volcanoes National Park provided a rich landscape for the biodiversity inventory. But the truly special part of this BioBlitz rests in the way the local traditions were seamlessly interwoven with the scientific investigations. In addition to a cultural festival with hula performances and traditional crafts and music, participants (of all ages and backgrounds) worked with both a professional scientist and a traditional Hawaiian cultural practitioner, an alakai'i.

The combined presence of an alakai'i and a scientist significantly enhanced the species inventories. The alakai'i shared stories and local names of the species, and they explained their traditional uses or significance. The scientists guided participants in the methods and provided technical expertise. Together, participants realized a more complete understanding of the spaces around them. The inclusion of traditional knowledge made the biodiversity count a rich, cultural experience as well as an educational, scientific one.

One participant captured the spirit of this year's BioBlitz: "It was an utterly wonderful event. I

think the combining of the cultural festival and the BioBlitz was brilliant, and it tied together culture and science in ways that strengthened interest and participation in both."

A goal for the National Park Service Centennial is to create a new generation of stewards for our national parks. One way to attract new national park visitors and champions is learning about and celebrating the customs and traditions of the people that live nearby. This year's BioBlitz is an excellent example of the power of these connections.

Culturla Showcase at fort Stanwix

Fort Stanwix National Monument partnered with the Midtown Utica Community Center to present a cultural showcase as part of the 2015 City of Rome, Honor America Days Celebration. Performers from around the world set up inside the fort, and presented traditional song and dance. The performing artists represent some of the fort's newest neighbors who are originally from Nepal, Bhutan, Burma, Thailand, Kenya, Latin America, and southeast Asia, and now call the Mohawk Valley home.

The show featured Bhutanese-Nepali folk song and dance, traditional Karen (from Burma) and Burmese dance, traditional Somali-Bantu dance, Karen/Korean hip-hop dance and several dances by Mohawk Valley Latino Association. In addition, there was a fashion show of international dress, informal storytelling about the refugee and immigrant experience, a pop-up exhibit, and commentary about the songs, cultures, and traditions presented at the showcase. This unique program explored the link between the cultural traditions of immigrant soldiers during the Revolutionary War and refugee communities of today, and showcased the diversity of the American experience from the 18th Century till today.

The partnership with MUCC has led to additional collaborations, including an oral history project that captured the story of a Burmese refugee who became a U.S. citizen at a naturalization ceremony held at the fort. The fort also partnered with the MUCC and the Youth Ambassador Program (YAP!) to film a music video about the Centennial of the National Park Service.

The Green Team, GroundWork, and the Timucuan Preserve

GroundWork Jacksonville, a non-profit created to inspire community members to take part in urban environmental conservation, has recently initiated their Green Team program. The Green Team is a program in which a small group of teens aged 14-18 are selected to become youth leaders within their communities. The idea is for Green Team members to lead Ground Works projects including restoring waterways, converting brownfields into green space and lending a hand at the National and State Parks.

Recently the Timucuan Ecological and Historic Preserve hosted the Jacksonville Green Team for their orientation. On their subsequent visits they worked on service projects, were educated by Timucuan and

French re-enactors, kayaked and learned about healthy living. One visit began with a continuation of the vista clearing behind the visitor center at Fort Caroline. After managing to clear another significant portion of the understory, Green Team members settled down for lunch with Conscious Eats, a catering company that specializes in healthy eating, food prep and the economics involved in it within a community's needs.

NPS rangers led the Green Team members on a hike along the Preserve trails, asking them to let all of their senses experience the environment. By remaining quiet and focusing on their senses the students were able to see, hear and smell the nature that surrounded them. Along their hike, park rangers discussed the importance of the National Park Service, what it means and why it is essential to preserve these areas for future generations.

U.S. Fish and Wildlife Service (FWS)

http://www.fws.gov

Tribal Partnerships Program

Native American tribes are among the Service's most important conservation partners. The Federal Government and the Service have distinct and unique obligations toward Tribes based on trust responsibility, treaty provisions, and statutory mandates. The Service has 130 agreements (Regions 5 & 7) with Tribes, Alaska Native corporations and Alaska native organizations. Tribes have a significant role in the conservation of fish and wildlife and their habitats. Effective relationship building and liaison with tribes is established first locally and at our field offices. Past grants have enabled tribes to develop increased management capacity, improve and enhance relationships with partners (including state agencies), address cultural and environmental priorities, and heighten tribal students' interest in fisheries, wildlife and related fields of study.

Engaging the Next Generation

Yearly, the Service continues to expand activities related to youth employment, education, and training opportunities for children and young people. The 21st Century Conservation Service Corps (21CSC) is a national effort to put young Americans to work protecting, restoring, and enhancing public and tribal lands and waters as well as cultural and historic treasures. The 21CSC provides training, education and employment opportunities for thousands of young Americans and Veterans, including low income and disadvantaged youth.

Challenge Cost Share Program

The Challenge Cost Share program is a 50:50 non-Federal partner matching program that supports pubic and partner projects. The funding supports work with non-Federal partners on projects that increases the resilience of landscapes to extreme weather events with a focus on the inland challenges of wildlife, flooding and droughts communities have to address. Projects funded improve communities' readiness at the project site and provide new and needed data to communities on what natural infrastructure designs and solutions contribute to resilience.

Cultural and Historic Resources

The Service ensures that significant cultural, archaeological, and historic resources are protected. The Service protects thousands of important cultural and archaeological sites including 89 resources listed on the National Register of Historic Places, ten of which have been designated National Historic Landmarks. More than 20,000 sites are located on Service lands to date, with more yet to be discovered. In addition, approximately 4.2 million museum objects are maintained in Service facilities or on loan to more than 200 non-Federal repositories, such as museums, academic institutions for scientific study, public viewing and long-term care. For example, one of the Service's most important museum collections, the Bertrand collection, was returned to its home repository after being evacuated from severe flooding at the DeSoto NWR in 2011. In 1865, the steamboat Bertrand, loaded with Civil War-era cargo en route to mining towns sank in the Missouri River only to be rediscovered buried on DeSoto in 1968.

Junior Duck Stamp Program

Since 1989, the Service has conducted the JDSP, an art and science-based environmental education curriculum to help teach wildlife conservation to American schoolchildren. As our Nation's population has become more urban, children are increasingly disconnected from, and indifferent to, the outdoors and natural world. The PDSP promotes an increased appreciation for the outdoors and fosters environmental stewardship amongst youngsters, while providing educators with the tools to teach about nature and to encourage conservation activities.

Alaska Subsistence Management Program

The Alaska Fisheries Subsistence Management Program is a multi-agency effort to provide the opportunity for a subsistence way of life by rural Alaskans on Federal lands and waters which maintaining healthy population of fish and wildlife. Subsistence fishing and hunting provide a large share of the food consumed in rural Alaska. The state's rural resident harvest about 18,000 tons of wild foods each year – an average of 295 pounds per person. Alaska indigenous inhabitants have relied upon the traditional harvest of wild foods for thousands of years and have passed this lifestyle, its culture, and values down through generations.