

Multiagency Abandoned Uranium Mines Working Group Action Plan

December 5, 2019

AGENCY	FY2018 ACCOMPLISHMENTS	FY2019 ACCOMPLISHMENTS	FY2020 OBJECTIVES
BIA	<ul style="list-style-type: none"> * Provided information to tribes * Monitored activities at tribal sites * Attended community outreach meetings * Provided EPA and PRPs access to tribal sites * Monitored effectiveness of remedies, overseeing internal control compliance for EPA * Developed MOU with EPA for long-term monitoring and controls * Validated GIS database and inventory * Evaluated AUM condition and prioritized needs 	<ul style="list-style-type: none"> * Provided information to tribes * Monitored activities at tribal sites * Attended community outreach meetings * Monitored effectiveness of remedies, overseeing internal control compliance for EPA 	<ul style="list-style-type: none"> * Provide information to tribes * Monitor activities at tribal sites * Provide EPA and PRPs access to tribal sites * Monitor effectiveness of remedies; oversee IC compliance on behalf of EPA * Prepare for EPA Five-Year CERCLA reviews
BLM	<ul style="list-style-type: none"> * Analyzed DOE and BLM data for DRUM on BLM-administered land in Grants, Red, White, Fry and Deer Flat, Thompson, Yellow Cat, Brown’s Hole, and Uravan Mining Districts * Verified and validated AUM sites and claims with private mining companies using established agreements * Expanded verification and validation of AUM and DRUM sites to other BLM states with uranium ore production * Evaluated environmental risk and prioritized AUM and DRUM mine sites * Categorized completed sites into appropriate designations, such as no further action (NFA), physical risk, or further study needed * Developed decision guidance for sites that have completed site characterization and risk analysis * Prepared decision documents for NFA sites 	<ul style="list-style-type: none"> * Analyzed DRUM site data on BLM-administered land and verified and validated sites * Verified and validated AUM sites and claims with private mining companies using established agreements * Expanded verification and validation of AUM and DRUM sites to other BLM states with uranium ore production * Evaluated environmental risk and prioritized AUM and DRUM mine sites * Completed NFA process with private mining company 	<ul style="list-style-type: none"> * Analyze DRUM site data on BLM-administered land and verify and validate sites * Verify and validate AUM sites and claims with private mining companies utilizing established agreements * Expand verification and validation of AUM and DRUM sites to other BLM states with uranium ore production * Evaluate environmental risk and prioritize AUM and DRUM mine sites * Work collaboratively with DOE to initiate a closure project * Complete AML risk guidance document
BLM & DOE DRUM Collaboration	<ul style="list-style-type: none"> * Evaluated/prioritized risks and completed V&V technical reports for 2017 DRUM projects in CO, UT, and NM * Transferred data from DOE to BLM generated from 2017 DRUM projects * Finished Red, White and Fry Canyons, and Deer Flat Districts, and Thompson projects in UT * Reconciled sites for 2019 DRUM projects * Coordinated with BLM state and field offices * Explored partnering opportunities with BLM-AZ * Completed Atkinson and Davis Mesa project in CO * Completed Buckmaster Draw project in UT * Completed Statewide project in NM 	<ul style="list-style-type: none"> * Gathered and reconciled DRUM site information for the preparation of FOPs and field verification and validation activities * Finished V&V projects in NM in the Grants and Statewide FOPs (~97 DRUM) * Finished two V&V projects in BLM-CO Uncompahgre Field Office (~158 DRUM) * Provided Risk Rollup Reports for BLM-CO and BLM-UT; UFO and Red Canyon, respectively, to evaluate risk screening and recommended priorities * Initiated modifications to existing Interagency Agreement between DOE and BLM to accomplish reclamation of physical hazards 	<ul style="list-style-type: none"> * Gather and reconcile DRUM sites information for the preparation of FOPs and field verification and validation activities * Complete South Dakota and Montana projects * Continued projects in CO and Utah and initiate new projects in AZ and Utah * Perform field verification and validation at 600 mine sites * Evaluate risk screening and prioritize sites in 8 new Roll-up Reports * Share and populate respective databases with site information * Finalize IAA modifications and new MOA for addressing reclamation of physical hazards

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DOE	<ul style="list-style-type: none"> * Revised DRUM program documents (e.g., V&V Work Plan, Health & Safety Plan, and Data Management Plan) * Developed FOPs for DRUM projects in CO, NM, and UT * Analyzed DRUM data to determine land ownership of unknown mine locations * Finalized two-year schedule for 2018/19 DRUM projects * Completed the DRUM Annual Report * Hosted DRUM partnership meeting in Grand Junction CO * Completed Phase II of DRUM database upgrade * Accomplished V&V work on 453 mines 	<ul style="list-style-type: none"> * Updated DRUM program documents (e.g., V&V Work Plan, Quality Assurance Plan, and Strategic Plan) * Instituted the first-ever Quality Assurance Surveillance Plan * Prepared six FOPs covering approx. 461 mines for projects near Moab, Gateway, Black Hills and Northern Rockies, and Wyoming * Accomplished V&V field work on 538 mines and completed 425 final V&V reports * Reconciled 1054 sites in 2019 * Completed over 1,600 of 2,500 mines on federal public land (68% complete with Campaign #1) * Populated DRUM databases with site information and shared with partners * Finalized two-year schedule for 2019/20 DRUM projects * Completed the DRUM Annual Report * Hosted DRUM partnership meeting in Westminster CO * Updated DOE cooperative agreements with Colorado Division of Mine, Reclamation, and Safety, and Utah Division of Oil, Gas, and Mining to add reclamation scope * Developed new DRUM Risk Rollup process that integrates modifying factors into risk screening and risk recommendations for assessment of DRUM priorities for physical safety hazards as well as potential risks to human health and the environment * Obtained concurrence on Rollup conclusions from USFS on Arapaho, Roosevelt, Pike, and San Isabel National Forests * Expanded DRUM Program from four to five field teams * Inventoried ~100 DRUM on private land in CO * Developed and initiated FOIA policy that prevents the release of DRUM information 	<ul style="list-style-type: none"> * Update DRUM program documents (e.g., V&V Work Plan, Data Management Plan, and Program Management Plan) * Finalize two-year schedule for 2020/21 DRUM projects * Develop estimated 6 new FOPs for DRUM projects * Publish the DRUM Annual Report * Prepare estimated 7 Risk Rollup Reports to facilitate concurrence with findings and the development of reclamation projects * Complete Phase III of DRUM database upgrade * Provide outward facing GIS database for partner agencies * Begin planning for Campaign #2, inventorying mines on tribal land, by collaborating with new partners * Prepare to initiate safeguarding of physical hazards identified by DRUM by piloting closures with BLM and USFS * Host DRUM partnership meeting in Westminster CO * Accomplish V&V work on 600 mines and produce over 300 reports * Evaluate the possibilities of developing a Historical Mining District in Colorado
EPA	<p><u>Navajo Nation</u></p> <ul style="list-style-type: none"> * Phase 1 Trust Agreement: completed 29 removal site evaluations and one water study * Phase 2 Trust Agreement: selected contractor * Cyprus Amax: completed 32 RSEs * Tronox: assessed, surveyed and improved mine access roads in the Cove area * Tronox – completed interim actions at Quivira * Tronox – completed 34 RSEs in the Cove area; completed remedial investigation in Cove area * Tronox – completed draft EE/CA at Quivira and present to remedy review board * Completed 10 removals of contaminated structures 	<p><u>Navajo Nation</u></p> <ul style="list-style-type: none"> * Completed detailed assessments at 73 sites * Completed 73 RSEs and 1 EE/CA * Continued search for additional sources of funding to initiate detailed assessments at approx. 300 abandoned uranium mines * Completed a preliminary evaluation of potential overlap with DRUM * Continued coordination with the Navajo Nation as a co-regulator and partner so Tribal Ecological Knowledge is incorporated in the CERCLA decision-making process * Continued involvement of community and tribal leaders in the mine assessment and cleanup process * Supported Community Outreach Network 	<p><u>Navajo Nation</u></p> <ul style="list-style-type: none"> * Complete detailed assessments at 70 sites * Complete 70 RSEs and 2 EE/CAs * Continue search for additional sources of funding to initiate detailed assessments at approx. 300 abandoned uranium mines * Continue coordination with the Navajo Nation as a co-regulator and partner so Tribal Ecological Knowledge is incorporated in the CERCLA decision-making process * Continue involvement of community and tribal leaders in the mine assessment and cleanup process * Support Community Outreach Network * Support Navajo workforce development and training

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	<ul style="list-style-type: none"> * Supported Community Outreach Network * Supported Navajo workforce development and training * Northeast Churchrock – completed remedial design and submitted license amendment to NRC * Completed RSEs at 46 priority mines in the 5-year plan * Launched the Navajo AUM Portal 	<ul style="list-style-type: none"> * Supported Navajo workforce development and training 	
	<p><u>Grants Mining District</u></p> <ul style="list-style-type: none"> * Held Grants Mining District Five-Year Plan partners meeting * Held PRP Information Meeting for former uranium mine operators * Conducted community meetings on groundwater investigation and removal actions * Implemented enforcement strategy for San Mateo Creek Basin, issuing notice letters to 10 PRPs * Completed Remedial Design for movement of mine waste from Northeast Church Rock to UNC Mill Site Tailings Cell and completed Five-Year Review * Participated in NRC Public Meeting on Homestake and Bluewater Mill Sites * Supported ATSDR’s completion of Public Health Assessment for Jackpile-Paguete Superfund Site 	<p><u>Grants Mining District</u></p> <ul style="list-style-type: none"> * Released Phase II groundwater report to stakeholders * Conducted community meetings on groundwater investigation and removal actions * Completed Tronox Prioritization Methodology (IG Commitment) * Completed Removal Site Evaluations on Region 6 Tronox Mines (IG Commitment) * Completed Section 18 Residential Time Critical Removal * Presented Region 6 Tronox Work to Diné Uranium Remediation Commission and hosted tour for members * Supported USGS reassessment of background levels for Homestake Mill Site * Approved Jackpile-Paguete RI/FS Work Plan * Continued ongoing groundwater remediation at UNC Mill Site * Participated in NRC Public Meeting on Homestake and Bluewater Mill Sites * Added San Mateo Creek Basin Central Study Area to EPA Administrator’s Emphasis List to support conclusion of negotiations 	<p><u>Grants Mining District</u></p> <ul style="list-style-type: none"> * Hold Grants Mining District Five-Year Plan outreach in preparation of December 2020 release of third Five-Year Plan * Offer formal consultation to Pueblos on draft Five-Year Plan * Continue oversight of PRP-lead remedial investigation/feasibility study at Jackpile * Conclude negotiations for San Mateo Creek Basin – Central Study Area RI/FS and begin oversight * Initiate and conclude negotiations for San Mateo Creek Basin – Western Study Area RI/FS * Johnny M (Hecla/PRP) – release EE/CA for public comment and begin negotiations with Hecla Mining to implement chosen remedy * Release “Alternative Analysis Memos” for Region 6 Tronox Mines prior to release of draft December 2020 EE/CAs * Support NRC as lead agency at Homestake Mill Site * Continue ongoing groundwater remediation at UNC Mill Site
	<p><u>Superfund & Enforcement</u></p> <ul style="list-style-type: none"> * Conducted quarterly meeting with Federal Land Management Agencies to coordinate enforcement through the FMD Enforcement Coordination Group * Conducted PRP searches of the subgroups * Continued review of “unknown” sites in coordination with working group agencies * Explored the possibility of delegating CERCLA authority from one agency to another at mixed ownership sites * Worked with EPA regions to determine whether further actions to identify PRPs are required * Launched an interactive Human Exposure Dashboard on the Superfund website 	<p><u>Superfund & Enforcement</u></p> <ul style="list-style-type: none"> * Conducted quarterly meeting with Federal Land Management Agencies to coordinate on enforcement through the FMD Enforcement Coordination Group * Published the Superfund Task Force Final Report, looking at ways to more efficiently and effectively remediate Superfund sites to protect human health and the environment * Developed and applied criteria to identify potential NPL sites to target for completion * Developed and released a Partnership and Stakeholder Engagement Strategy to increase public participation and transparency at Superfund sites * Celebrated 20 years of the Superfund Redevelopment program successfully returning sites to communities for reuse 	<p><u>Superfund & Enforcement</u></p> <ul style="list-style-type: none"> * Conduct quarterly meeting with Federal Land Management Agencies to coordinate enforcement through the FMD Enforcement Coordination Group * Conduct PRP searches * Revise the CERCLA Liability and Local Government Acquisitions and Other Activities fact sheet * Publish the Superfund Remedial Annual Accomplishments Report

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		<ul style="list-style-type: none"> * Issued revised Common Elements Guidance for creating opportunities for new investment in cleaning up and redeveloping contaminated sites 	
EPA & Forest Service	<p><u>Mixed Ownership Sites</u></p> <ul style="list-style-type: none"> * Developed a plan for identifying potential mixed ownership or unknown sites in CO to assist with coordinating and leveraging future assessment and cleanup efforts * Identified and screened the top three sites and agreed on collaborative characterization and cleanup approach * Carried out characterization and cleanup of the identified sites and reported progress 	<p><u>Mixed Ownership Sites</u></p> <ul style="list-style-type: none"> * Continued work on sites, as needed 	<p><u>Mixed Ownership Sites</u></p> <ul style="list-style-type: none"> * Continue work on sites, as needed
Forest Service	<ul style="list-style-type: none"> * Continued work on Grants Five-Year Action Plan (five sites) * Continued work on Tronox sites (three sites) * Continued work in Harshaw Creek (five sites) by developing Removal Design and starting initial phases of Removal Action * Conducted reviews for remediated sites where radiological hazards may be present (began work in CO) 	<ul style="list-style-type: none"> * Continued work on Grants Five-Year Action Plan (five sites) * Continued work on Tronox sites (three sites) * Continued work in Harshaw Creek (five sites) 	<ul style="list-style-type: none"> * Continue work on Grants Five-Year Action Plan (five sites) * Continue work in Harshaw Creek (five sites)
Forest Service & DOE DRUM Collaboration	<ul style="list-style-type: none"> * Developed Interagency Agreement between DOE and USFS Region 1, 3, 5, 6, and 10 to conduct DRUM V&V activities * Identified sites where USFS can partner with DOE * Evaluated risk and completed V&V technical reports for Arapaho and Roosevelt National Forest DRUM Project * Developed field schedule to complete DRUM V&V throughout Region 2 * Determined land ownership (e.g., USFS, private), coordinating accordingly with EPA Region 8 * Populated respective databases with new information * Conducted Region 2-wide DRUM project * Conducted Manti La-Sal and Fish Lake National Forest DRUM projects * DOE and USFS Region 1, 3, 5, 6, and 10 determine which DRUM to reconcile for field verification and validation 	<ul style="list-style-type: none"> * Evaluated risk scores and screening results presented in V&V reports and Rollup reports for Arapaho, Roosevelt, and Pike National Forest DRUM projects * Concurred with DOE's risk recommendations in several Rollup reports on Arapaho, Roosevelt, Pike, and San Isabel National Forests * Developed national Interagency Agreement between DOE and USFS to support activities associated with physical closures noted by the DRUM program, such as NEPA approvals, closure designs, and construction * Identified additional sites where USFS can partner with DOE on DRUM * Initiated the Black Hills and Northern Rockies projects * Continued the Region 2 and Manti La-Sal projects 	<ul style="list-style-type: none"> * Gather and reconcile DRUM sites information for the preparation of FOPs and field verification and validation activities * Complete Wyoming, South Dakota and Montana projects * Continue projects in CO and Utah * Perform field verification and validation on over 500 mines * Evaluate risk screening and prioritize sites in new Roll-up Reports * Share and populate respective databases with site information
NPS	<ul style="list-style-type: none"> * Continued studies at the Orphan Mine site 	<ul style="list-style-type: none"> * Continued studies at the Orphan Mine site 	<ul style="list-style-type: none"> * Continue studies at the Orphan Mine site

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AUMWG	<ul style="list-style-type: none"> * Held annual face-to-face meeting * Held technical face-to-face meeting * Finalized overview outreach paper * Developed FY16/17 accomplishments report * Began development of a communications strategy * Continued AUMWG coordination efforts – held monthly calls and meetings 	<ul style="list-style-type: none"> * Held annual face-to-face meeting * Held technical face-to-face meeting * Continued AUMWG coordination efforts – held quarterly calls and meetings 	<ul style="list-style-type: none"> * Hold annual face-to-face meeting * Review and update the strategic plan * Continue AUMWG coordination efforts – hold quarterly calls, attend annual meeting, update strategy documents