S29398

2020-2030 Strategic Plan

Defense-Related Uranium Mines Program

March 2020

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Executive Summary

The Defense-Related Uranium Mines (DRUM) Program 2020-2030 Strategic Plan describes the U.S. Department of Energy Office of Legacy Management (LM) implementation of a multi-phased approach to screening abandoned defense-related uranium mines for the purposes of evaluating and reporting on the risks and hazards presented by these mines while employing an interagency approach to resolve identified physical hazards presented to the public at many of these sites. This multi-pronged approach to verifying and validating these mines not only identifies risks and hazards presented by the mines, but, in conjunction with federal, state, tribal and local governments, allows for implementation of a one-government approach to safeguarding the public from mine-related hazards. In order to maximize efficiencies that reflect potential risk that might result from public visitation to mines, LM is sequentially implementing its DRUM Program on public land (Campaign 1), tribal land (Campaign 2), and private property (Campaign 3). These campaigns will be completed over approximately 13 years, having begun in 2017 with an anticipated conclusion in 2030.

In order to achieve the primary goal of identifying and ultimately safeguarding mines that pose unacceptable risk to the public, LM has developed a three-tiered approach to achieving DRUM Program objectives. These strategies include promoting administrative effectiveness and efficiency during program implementation; utilizing technical expertise to collect, evaluate, and report data obtained at mines; and fostering intragovernmental relationships with partner agencies for the purpose of reducing potential risks to the public posed by these mines. This strategic approach to program implementation helps management identify potential programmatic risks and evaluate potential preventative measures in order to optimize success over the life of the program.

Introduction

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) developed a comprehensive strategy to address the risks posed by abandoned uranium mines (AUMs) that had produced ore for purchase by the former U.S. Atomic Energy Commission (AEC). This strategic plan identifies the priority goal, protecting human health and the environment, and identifies the need to address the environmental legacy of defense-related uranium mines and some ore-upgrading facilities (DOE 2020a). The Defense-Related Uranium Mines (DRUM) Program has developed objectives and incremental strategies to achieve these goals, as well as tactical measures to control program risks. This strategic plan enables the program to achieve results in an efficient and cost-effective manner, produce defensible data, and expedite management decisions. It relies on the integration of LM expertise with that of land management, regulatory, state, and tribal agencies (known as partner agencies). This one-government approach optimizes the benefit to the government by leveraging resources to expedite the reduction of risk to human health and the environment. Finally, it provides a three-tiered strategy enabling the success of the DRUM Program.

 *Note*	*Unless otherwise specified, in this document, the word "mine" always refers to a mine associated with the DRUM Program.*

Situational Analysis

Legislative Underpinning

The National Defense Authorization Act for Fiscal Year (FY) 2013 (PL 112-239) (enacted January 2013) mandated that the DOE consult with the U.S. Department of the Interior and the U.S. Environmental Protection Agency (EPA) to prepare a report to Congress on AUMs from which uranium ore was produced for U.S. defense purposes for purchase by the AEC between 1947 and 1970. In 2014, after consulting with other federal agencies, affected states, tribal nations, and interested members of the public on these AUMs, LM submitted the *Defense-Related Uranium Mines Report to Congress* (DOE 2014) (report to Congress).

Following 18 months of intergovernmental coordination, the report concluded that there are still numerous data gaps associated with AUMs. Most importantly, the extent of chemical and radiological hazards to human health and safety, and the amount of environmental degradation caused by the mines was not well understood. Concerns about the possible risks associated with these unknowns and the mandate to obtain information and data on AUMs across the United States provided the legislative underpinning for LM's establishment of the DRUM Program in FY 2017.

U.S. Office of Management and Budget (OMB) Support

LM led the effort to produce the report to Congress and delivered it to the House and Senate Committees on Armed Services, the Senate Committee on Energy and Natural Resources, the House Committee on Energy and Commerce, and the House Committee on Natural Resources in August 2014. The congressional budget request for FY 2017 supported LM's continued involvement in a multi-agency effort to fill existing data gaps through verification and validation (V&V) of existing information. This additional effort is resulting in a better understanding of the magnitude and extent of the issues associated with defense-related uranium mines. Based on discussions with other federal agency partners, such as EPA, LM proposed focusing the DRUM Program on mines located on public land and completing V&V field work on an estimated 2,500 mines in its first 5-year campaign.

LM Vision, Mission, and Operating Principles

The overarching mission of LM is to "Fulfill the Department of Energy's post-closure responsibilities and ensure the future protection of human health and the environment" (DOE 2020a). Promoting the protection of human health and the environment is among the nation's top priorities, and LM is vital to that endeavor. The vision and operating principles of LM further guide the DRUM Program and aid in the design of program objectives and strategies. Collectively, these principles recognize that legacy uranium mining activities have potentially impacted local communities and the environment. It is LM's federal trustee responsibility to safeguard land and resources by working collaboratively with communities, other governmental agencies, and tribal nations.

The DRUM Program supports LM's strategic goal of "protect human health and the environment," known as Goal 1. In addition, the DRUM Program supports Objective 4 under Goal 1, which states that LM shall "address the environmental legacy of defense-related uranium mining and milling sites" (DOE 2020a).

DRUM Program

For the DRUM Program, that environmental legacy is the remnant risks of the former uranium mines that supported AEC's procurement of domestic uranium for defense programs from 1947 to 1970. It is apparent in the 2014 report to Congress that the environmental hazard potential of many of these mines is unknown. The potential presence of physical hazards and/or surface contamination from chemical or radiological constituents is a major government concern. DOE is not directly liable for these hazards; however, the department has a responsibility to assist in resolving these legacy issues in an expeditious manner. By working collaboratively with partner agencies, LM can accelerate the mitigation of hazards in order to protect human health and the environment.

The federal land management agencies have the authority to safeguard physical hazards according to the Federal Land Policy and Management Act of 1976, which is outlined in Title 43 *United States Code* Section 1701 (43 USC 1701 et seq.) and the authority to remediate hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (42 USC 9601 et seq.) (CERCLA), commonly known as Superfund. DOE is augmenting these authorities with their implied authority under the Atomic Energy Act (42 USC 2011 et seq.) and the Department of Energy Organization Act (PL 95-91, Stat. 565) to protect public health, safety, and the environment and to ensure that this protection continues when potential physical hazards to humans and the environment are unattended. This allows for the use of DOE funding for the safeguarding of physical hazards.

Cost recovery and cost avoidance are also important considerations in developing strategies for mitigating impacts to human health and the environment, as concerns about cost avoidance tend to prolong the time for a response. Strategies for recovering the costs of alleviating these risks could include pursuing litigation against potentially responsible parties (PRPs). Although most of the AUMs predate modern mining law, EPA, as well as other agencies, can make use of its authority under CERCLA to identify a PRP and negotiate an agreement in which the PRP becomes responsible for the cost of environmental remediation. In addition, in the cases of several noteworthy uranium mines not associated with the program, the U.S. government settled litigation with the Navajo Nation, even though the government did not operate or own these mines. However, there are disadvantages to this approach, including significant initial costs and time delays. LM evaluated various options for minimizing the drawbacks associated with pursing litigation and developed a program of pre-screening the risks associated with these mines to prioritize and more quickly focus on the protection of human health and the environment in a cost-effective manner. The strategy for achieving this is discussed below.

DRUM Program Strategy

An effective program strategy is essential to achieving LM's overarching mission to protect human health and the environment, and such a strategy must apply effective objectives and methodologies to address the environmental legacy of defense-related uranium mines and some ore-upgrading facilities. The DRUM Program's primary goal is to identify mines that pose potentially unacceptable risks to human health and the environment and efficiently allocate government resources to address these problems.

To achieve this goal, the following program objectives have been formulated:

1) Share existing information and collect site-specific data at each mine to identify possible safety hazards or the potential for the release of mine-related contaminants

2) Perform high-level or relative risk scoring and ranking of these mine hazards
3) Improve the data quality and content of the DRUM Program database and agency databases
4) Exchange information with federal, tribal, and state governments
5) Work with these partner agencies to leverage resources to address mines with priority hazards

The following tiered strategies have been developed to optimize the achievement of program objectives:

- *Administrative strategy* for the most effective and efficient implementation of the program
- *Technical strategy* for the collection and evaluation of defensible data and subsequent site report information
- *Intragovernmental strategy* for collaboration with partner agencies to reduce the potential risks posed by the remnant hazards at these legacy mines

Each strategy identifies potential risks and the possible preventative measures for minimizing their impacts. These measures will be re-evaluated annually to optimize program success.

Administrative Strategy: *Scope, Implementation, and Budget*

The administrative strategy recognizes the interrelationship of three critical aspects of the program's administration — scope, implementation, and budget — and looks for opportunities for efficiency. This administrative strategy further integrates the unique capabilities of LM's partners into the overall program in order to leverage resources effectively and achieve a collaborative, one-government approach.

Scope

The scope of the DRUM Program is based upon AEC records on purchased uranium ore that supported defense activities from 1947 to 1970. These purchase records identify the location of individual mines and other sources of ore, such as uranium concentrators, across the nation on federal, state, tribal, private, and mixed-ownership land. The majority of these mines are located on public land (Figure 1). Over 90% of the mines are in the western United States (Figures 2 and 3).

Figure 1: DRUM Program Mines by Land Agency

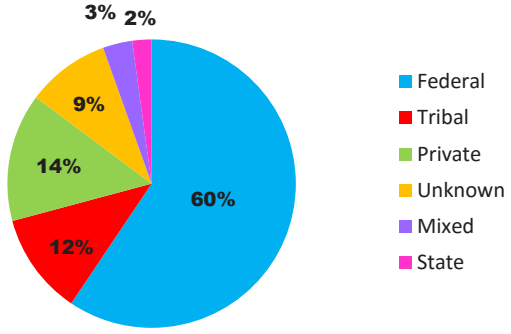
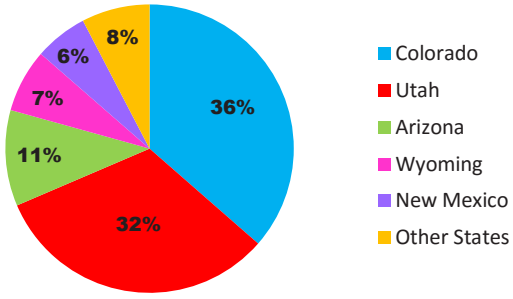


Figure 2: DRUM Program Mines by State

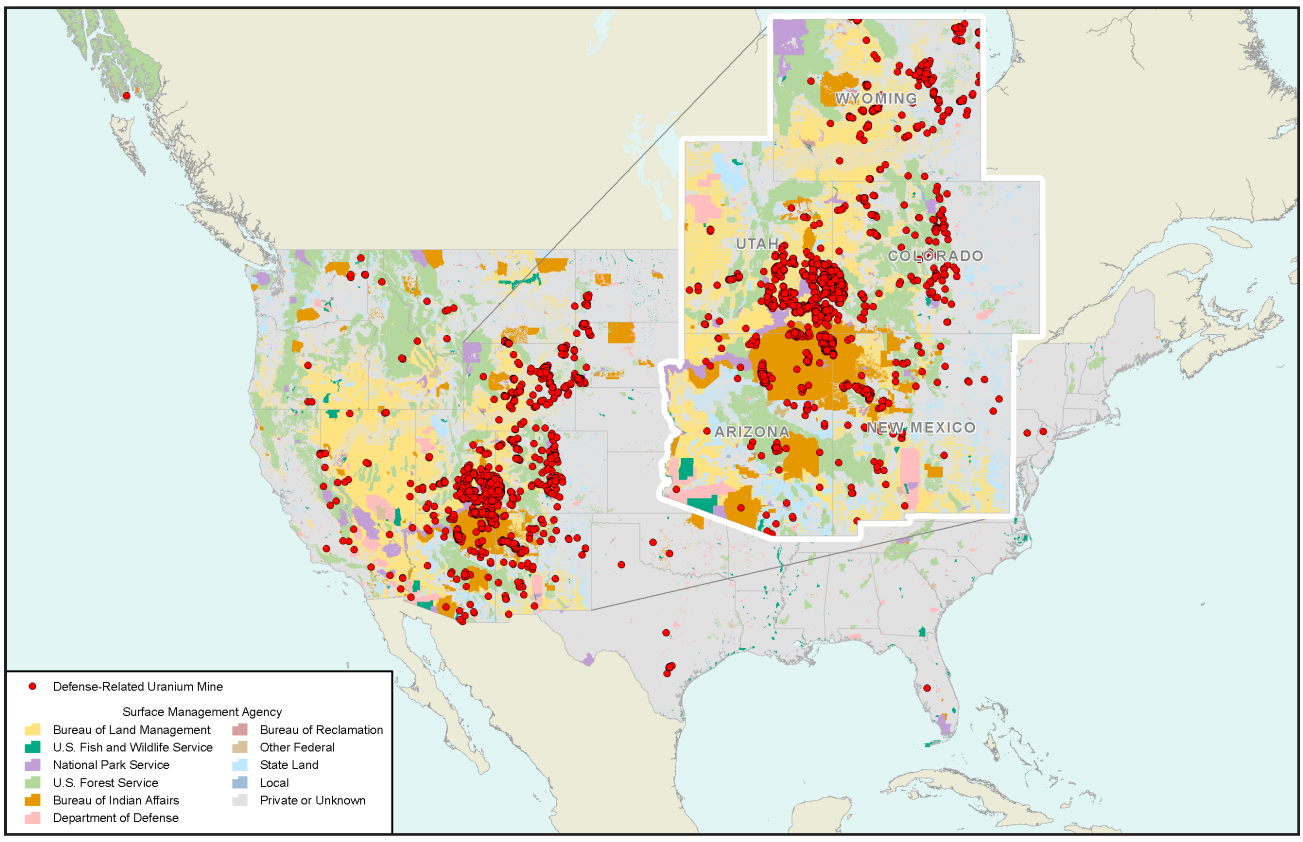


Spatial distribution of the mines is a product of the mineral composition of the various geologic settings, which significantly influences the population density and the mine density of any given area (Figure 3).

Implementation

Classifying the population of mines by location and land administration has several advantages for the implementation of the program. LM's implementation strategy prioritizes the geographic areas with the greatest mine population and density and is systematic in its progression across each region. Such an approach greatly maximizes overall program efficiency and reduces costs. The strategy also recognizes factors that complicate implementation. These are, but are not limited to, land ownership, land administration authorities, current environmental regulatory activities, and enforcement actions.

Figure 3: Spatial Distribution of Mines

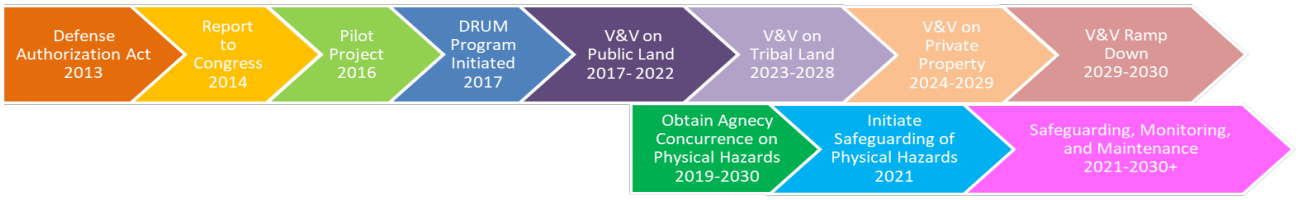


A significant factor affecting implementation is the impact of land administration on the ease of access to the mines. Public land is readily accessible by LM field team personnel. Furthermore, mines on public land are a relatively higher priority because there is a greater likelihood that visitors will be exposed to mine hazards on public land than on tribal or private land. This ease of access, coupled with the fact that the majority of these mines are on public land, offers a logical starting point for program implementation. In addition, a unified approach can be utilized nationally on public land as agencies managing these lands (the U.S. Bureau of Land Management, the National Park Service, and others) use similar "recreational use scenarios" for assessing risks to human health and the environment. Private property, on the other hand, is inherently more difficult to access than public land, and access usually requires that LM obtain formal access agreements for each mine. The EPA's active regulatory presence and CERCLA enforcement strategy and settlement funds currently mitigates the urgency for the program to address mines located on tribal land.

Partner agencies are the decision makers for AUMs on public land. This strategy recognizes their authority and their current activities and also helps to prevent redundancy when it comes to government actions. To this end, LM is currently working with federal and state agencies on public

land and will be working with tribal governments, EPA, and private landowners in the future. The timeline for this is illustrated in Figure 4.

Figure 4: DRUM Program Fiscal Year Implementation Timeline



As noted above, the best way to mitigate potential DRUM-related risks and allow for the most efficient overall use of government resources was to initiate the DRUM Program on public land. This initial 5-year campaign (Campaign 1) focuses on mines on federal, state, local, and mixed-ownership land (collectively representing approximately 65% of the mines encompassed by the program) and evaluates mine hazards using a recreational land use scenario.

Integrated into the implementation of the DRUM Program is LM's plan to leverage resources to assist partner agencies in safeguarding physical hazards that are identified by each campaign (Figure 4). Through a process of collaboration, the agencies will determine priorities and optimize available resources to safeguard identified hazards. LM will perform the initial monitoring and maintenance of the safeguarded hazards before closing out the DRUM Program. Initiation of a second 5-year campaign to perform V&V work on mines located on tribal land (Campaign 2, which includes approximately 12% of the mines associated with the program) will be integrated into Campaign 1 starting in FY 2023. A third 5-year campaign (Campaign 3) to perform V&V work on mines located on private property (representing approximately 14% of the mines associated with the program) will be implemented in FY 2024 (Figure 4). Completion of the program is anticipated for 2030.

Interagency collaboration for Campaigns 2 and 3 will specifically be designed to best augment the ongoing AUM programs of the partner agencies with responsibility for these lands (e.g., EPA, U.S. Bureau of Indian Affairs, tribal AUM programs, as well as the U.S. Forest Service and the U.S. Bureau of Land Management). The DRUM Program will identify data gaps, if any, and solidify new administrative and technical strategies (e.g., soliciting community stakeholder input and adjusting land use assumptions based on the most likely scenarios). Though the number of mines targeted in Campaigns 2 and 3 will be fewer than the quantity addressed in Campaign 1, the added complexities associated with these campaigns will lengthen the time required per mine to complete V&V work.

Budget

The progress of the program and its short-term and long-term schedules will be continually assessed for budgetary needs. In the LM life cycle baseline (LCB), $5 million per year for five years was identified as the budgetary resource requirement for the DRUM Program on public land (Campaign 1). The FY 2021 budget will include the cost of enhancing the program to encompass partnering on the safeguarding of physical hazards, which are numerous and are recognized as an immediate threat to human health and safety. Campaign 2 for mines on tribal land and Campaign 3 on private property will be integrated into LCB planning for initiation in FY 2023 and FY 2024, respectively.

Potential Risks to Administrative Strategy:

1. Wavering support and appropriations for the DRUM Program.

   Preventative Measure:

   The program will continue to collaborate with partner agencies, show progress, and evaluate its cost savings to the government by quantifying the benefit of the overall inventory of legacy hazards identified by the program. This return on investment will be updated as the program quantifies the costs of addressing the hazards inventoried, which will be compared to the estimated total government costs assumed in the 2014 report to Congress. The benefits, cost savings, and budget needs of the DRUM Program will be reported as part of the president's budget submission process. This line of communication will extend to congressional staff and the OMB. In addition, there may be a need for LM and partner agencies to provide joint briefings and further promote the collective advantages of the DRUM Program.

2. Problematic transition from Campaign 1 to Campaign 2.

   Preventative Measure:

   LM will proactively expand the intragovernmental strategy in FY 2021 to incorporate the EPA and tribal governments. This expansion will coincide with the gradual ramp down of Campaign 1 in FY 2022. The scope and budget of the program will incorporate necessary changes to utilize information, objectives, and expectations to achieve program consensus with its new partners. In anticipation of greater community involvement, additional outreach products will be prepared for Campaign 2.

3. Pressure on LM to start work on mines on tribal land during Campaign 1.

   Preventative Measure:

   LM is sharing DRUM technical documents and other relevant information with EPA Regions 6 and 9. In addition, the agencies have had informal discussions regarding how DRUM methodologies could be applied to similar efforts on tribal land. LM will initiate formal outreach and conversations with affected tribes by no later than the spring of 2021 (FY 2021).

4. Difficulties with gaining access to private property for Campaign 3.

   Preventative Measure:

   LM will pursue a partnership with EPA to access mines on private property using EPA's authority. LM will expand the DRUM support contract to include realty services necessary for obtaining access agreements. The additional time that will be required for gaining access is accounted for in the 5-year timeframe. LM recognizes the potential that access will not be granted for all mines; however, in these cases, LM will obtain as much information as is possible without visiting the mine to achieve the objectives of the DRUM Program.

Technical Strategy:

The DRUM Program is a data gathering and risk screening process that supports partner agency decisions for safeguarding, reclamation, and/or remediation. It is not the intention of the program to satisfy requirements of CERCLA; however, a data objective is to expedite defensible management decisions by minimizing the amount of additional data that might be needed if further actions or evaluation are deemed necessary.

Information expectations of the program require the recognition of the intended use of the data. This is the driving consideration in the formulation of programmatic objectives as well as data quality objectives (DQOs). Equally important is collaboration and concurrence on the DQOs on the part of partner agencies for the overall acceptance of the data and information needed for decision making. The DQO process results in program-specific quality assurance (QA) objectives. These objectives, which include precision, accuracy, representativeness, comparability, and completeness, are reflected in the DQOs and the program's planning documents and follow EPA's QA guidance. Program objectives and DQOs are defined in the *Defense-Related Uranium Mines Verification and Validation Work Plan* (DOE 2020b) (V&V Work Plan) and the *DRUM Quality Assurance Program Plan* (LMS/DRM/S15867).

The primary data objectives of the DRUM Program are to:

- Determine each mine's location
- Document the presence of physical hazards
- Identify current site environmental conditions
- Confirm the status of any previous reclamation or remediation actions

Most of the data are observational and descriptive in nature (e.g., the location, complexity, and general condition of mine features); however, some are newly acquired analytical data. The data gathered will be of sufficient quantitative and qualitative value to accurately evaluate physical, chemical, and radiological hazards at mines. A recreational land use scenario is used to evaluate mines on public land, while some variation of a residential scenario is anticipated for tribal land and private property. The scenarios are used in conjunction with a weight-of-evidence risk screening and hazard ranking approach that will help partner agencies determine and prioritize possible future actions.

Potential Risks to the Technical Strategy:

1. Compromised data quality.

    Preventative Measure:

    In order to ensure data are defensible and of sufficient quality and quantity and that the appropriate data and information are collected, the program utilizes a quality assurance/quality control program and DQO process. Each is captured in programmatic planning documents and follows the industry standards and guidance documents established by EPA (EPA 2006). The program has further customized quality control measures to ensure the high quality of the data as they are being collected, during data review, and in reporting.

2. Rejection of data and information by partner agencies.

Preventative Measure:

Ongoing collaboration with partner agencies ensures their acceptance of not only the data, but also the information generated from the data (e.g., risk ranking). There are numerous informal and formal meetings and engagements with representatives from individual agencies to discuss progress, direction, improvements, and other topics. Due to the importance of collaborating with partner agencies, the program has developed the following intragovernmental strategy.

Intragovernmental Strategy: *Collaboration and Leveraged Resources*

The intragovernmental strategy is to develop a synergy that fosters a coordinated one-government approach that results in the timely use of DRUM data and information for the reduction of risk to human health and the environment. This strategy requires the identification of regulatory authorities, recognition of the strengths and weaknesses of each agency, and collaborative actions that result in effective synchronization of governmental goals and leveraged resources.

The goals of the DRUM Program augment the mission and responsibilities of federal, state, and tribal Abandoned Mine Lands (AML) programs, thereby making interagency collaboration and coordination an integral component of the program's success. The scope of their programs, however, is immense, which limits their ability to focus on AUMs and their role in the DRUM Program. LM has received appropriations to perform V&V work and screen and evaluate the risks posed by mines associated with the program, which simultaneously accomplishes the goals of partner agencies and enables them to effectively focus on other AML priorities.

Moreover, through this coordinated program, the agencies can prevent redundancy of effort and effectively leverage their resources so they can successfully and expeditiously protect human health and the environment. In order to achieve this goal, LM must ensure partner agencies accept the data, information, and risk rankings produced by the DRUM Program. Therefore, the DRUM Program must implement a strategy for ongoing collaborative participation and consensus with partner agencies to ensure the V&V Work Plan and DQO process reflect their objectives and technical needs.

Program acceptance requires active participation by the partners in the planning steps of the program, such as work plan development, methodologies, field schedules, and field oversight. Because the partner agencies have AML expertise, they are frequently consulted for assistance, and LM facilitates this support through memoranda of understanding, interagency agreements, and cooperative agreements. The scope of each agreement depends upon the defined tasks and abilities of the partner agency.

The physical hazards identified by the DRUM Program should be addressed as expeditiously as possible for the safety of the public; therefore, strategies must be very flexible to accommodate expedited risk reduction decisions. Furthermore, it is important for LM to consider that the data and information generated by the DRUM Program may become dated or obsolete if too much time elapses. The passage of time only increases the potential for severe accidents to occur. By working collaboratively with these agencies, LM could accelerate the mitigation of hazards in order to protect human health and the environment.

Potential Risks to Intragovernmental Strategy:

1. Limitations on partner agency participation.

   Preventative Measure:

   Partner agencies have differing levels of involvement in the DRUM Program. This is due to several factors, such as lack of staff, staff skillsets, budget, and competing program and mission priorities. Although LM is focused on the DRUM Program, the mines associated with this program represent a small percentage (less than 5%) of the approximately 150,000 abandoned hard rock mines in the United States. And, even though LM is providing funding through financial assistance agreements to partner agencies, many of the staff of these agencies have other duties that limit their ability to prioritize DRUM activities. To optimize their program support, LM will place the partner agencies in a review capacity as much as possible and maintain financial agreements to help mitigate their competing priorities.

2. Potential liabilities for partner agencies related to the findings of the DRUM Program.

   Preventative Measure:

   Partner agencies are concerned with the potential repercussions created by the findings of the DRUM Program. Program findings are increasing their knowledge of and quantifying their potential liability for these hazardous conditions. LM is planning to provide greater assistance to their partners so that priority hazards identified by the DRUM Program are expeditiously addressed. LM will exercise its implied authority to protect public health, safety, and the environment for this augmentation. This implied authority includes safeguarding practices including, but not limited to, backfilling and gating mine openings. LM is anticipating using existing financial agreements with state and federal agencies to perform this work, as well as investigating contracting options.

   The current program has provisions such that, if LM identifies a feature posing an imminent hazard, it will immediately inform the appropriate agency. Every individual DRUM mine report includes an account of any "notifiable features" identified. The agency can then take steps using LM financial agreements for temporary safeguarding until a long-term measure can be implemented.

Summary

The DRUM Program is currently implementing the above strategies in the pursuit of accomplishing Campaign 1. This initial campaign has been successful in achieving DRUM Program goals and is producing defensible data for the identification of hazards and facilitating partner agency decisions. In addition, the intragovernmental strategy is fostering a synergy that supports a one-government approach that is effectively leveraging the abilities of the partners.

The program has recognized the necessity to improve its abilities to expeditiously address the physical hazards being identified by the DRUM Program and is initiating new efforts to augment our partnerships. Despite competing responsibilities and pressures, partner agencies have been able to effectively participate in the program and are taking advantage of the benefits it offers. DRUM

partners are actively engaged and are interested in ranking sites in order to prioritize safeguarding activities. LM will work with these partner agencies to leverage resources to address mines with priority hazards.

LM continues to receive support for the program, and, as the program continues to evolve, LM continually considers possible areas for improvement. In addition, LM implements preventative measures to reduce program risks and ensure the continued and successful implementation of Campaign 1. LM will build upon this experience and success to pursue long-term solutions for priority hazards and initiate a smooth transition into Campaign 2 on tribal land and Campaign 3 on private property. Through the continuation of the DRUM Program, LM will achieve its goal of protecting human health and the environment and fulfill its responsibility to address the environmental legacy of defense-related uranium mines and some ore-upgrading facilities.

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Appendix A

Authorities, Regulatory Requirements, and Compliance Drivers

This appendix catalogues the statutes that provide authority to the DRUM Program as well as the regulatory requirements and compliance drivers.

- Atomic Energy Act of 1954, as amended (42 USC 2011 et seq.)
- Bald and Golden Eagle Protection Act (16 USC 668)
- Department of Energy Organization Act of 1977 (PL 95-91, Stat. 565)
- Endangered Species Act (16 USC 1531 et seq.)
- Migratory Bird Treaty Act (16 USC 703-712)
- National Defense Authorization Act for Fiscal Year 2013, Section 3151, "Report on Abandoned Uranium Mines" (PL 112-239)
- National Environmental Policy Act (42 USC 4321 et seq.)
- National Historic Preservation Act (16 USC 470)
- Section 404 of the Clean Water Act (33 USC 1251 et seq.)

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Appendix B

Acronyms

AEC	U.S. Atomic Energy Commission
AML	Abandoned Mine Lands
AUM	abandoned uranium mine
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
DQO	data quality objective
DRUM	Defense-Related Uranium Mines
EPA	U.S. Environmental Protection Agency
FY	fiscal year
LCB	life cycle baseline
OMB	U.S. Office of Management and Budget
PL	Public Law
PRP	potentially responsible parties
QA	quality assurance
USC	United States Code
V&V	verification and validation

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Appendix C

References

16 USC 470. "National Historic Preservation Act," *United States Code*.

16 USC 668. "Bald and Golden Eagle Protection Act," *United States Code*.

16 USC 703-712. "Migratory Bird Treaty Act," *United States Code*.

16 USC 1531 et seq. "Endangered Species Act," *United States Code*.

33 USC 1251 et seq. "Clean Water Act," *United States Code*.

42 USC 2011 et seq. "Atomic Energy Act," *United States Code*.

42 USC 4321 et seq. "National Environmental Policy Act," *United States Code*.

42 USC 9601 et seq. "Comprehensive Environmental Response, Compensation, and Liability Act," *United States Code*.

43 USC 1701 et seq. "Federal Land Policy and Management Act of 1976," *United States Code*.

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EPA (U.S. Environmental Protection Agency), 2006. *Guidance on Systematic Planning Using the Data Quality Objectives Process*, EPA QA/G-4, February.

PL 95-91, Stat. 565, "Department of Energy Organization Act," Public Law.

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