U.S. Department of the Interior
Office of Surface Mining Reclamation and Enforcement

Appendix A

Abandoned Mine Land Inventory Manual

October 2023

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List of Common Acronyms in this Manual and the Enhanced Abandoned Mine Land Inventory System (eAMLIS)

Acronym	Expansion
AD/PS	Assistant Director for Program Support
AFS	Alternate Funding Source(s)
AML	Abandoned Mine Land(s)
AMLER	Abandoned Mine Land Economic Revitalization Program
ATP	Authorization to Proceed
BIL	Bipartisan Infrastructure Law
BLM	Bureau of Land Management
CSV	Comma-separated values
CY	Cubic Yards
DOI	Department of the Interior
eAMLIS	Enhanced Abandoned Mine Land Inventory System
FIPS	Federal information processing standards codes
FOD	Field Office Director(s)
FRP	Federal Reclamation Program
FRPMS	Federal Reclamation Program Management System
GIS	Geographic Information System(s)
GPRA	Government Performance and Reports Act
HUC	USGS Hydrologic unit code(s)
IIJA	Infrastructure Investment and Jobs Act
LF	Linear Feet
NEPA	National Environmental Policy Act
NIST	National Institute of Standards and Technology
NPS	National Park Service
NRCS	Natural Resources Conservation Service
OMB	Office of Management and Budget
OSM / OSMRE	The Office of Surface Mining Reclamation and Enforcement
P1 / P2 / P3 (etc.)	Priority 1 / Priority 2 / Priority 3
PA	Problem Area
PAD	Problem Area Description
PDF	Portable Document Format
PU	Planning Unit(s)
QHU	Qualified Hydrologic Unit
RAMP	Rural Abandoned Mine Program
RD	Regional Director(s)
SMCRA	Surface Mining Control and Reclamation Act Amendments
SOP	Standard Operating Procedure(s)
STREAM Act	Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act
USDA	United States Department of Agriculture
USFS	United States Forest Service
USGS	United States Geological Survey
WBD	Watershed Boundary Dataset
WCU	Water Cataloging Units

List of Priority 1 and Priority 2 Problem Type Acronyms

Acronym	Problem 1 and Priority 2 Problem Type
CS	Clogged Streams
CSL	Clogged Streams Lands
DH	Dangerous Highwalls
DI	Dangerous Impoundments
DPE	Dangerous Piles and Embankments
DS	Dangerous Slides
FLD	Flooding
GHE	Gases: Hazardous/Explosive
HEF	Hazardous Equipment & Facilities
HWB	Hazardous Water Bodies
IRW	Industrial/Residential Waste
P	Portals
PWAI	Polluted Water: Agriculture & Industrial
PWHC	Polluted Water: Human Consumption
S	Subsidence
SB	Surface Burning
UMF	Underground Mine Fires
VO	Vertical Openings

List of Priority 3 Problem Type Acronyms

Acronym	Priority 3 Problem Type
BE	Bench
DH	Highwall
DP	Industrial/Residential Waste
EF	Equipment/Facility
GO	Gob
HR	Haul Road
MO	Mine Opening
O	Other
PI	Pits
SA	Spoil Area
SL	Slurry
SP	Slump
WA	Water Problems
WS	Water Supplies

List of Discontinued Priority 4, 5, F, and H Problem Type Acronyms

Problem Type	Acronym	Expansion
P4 COAL	CNF	Conservation Facilities
P4 COAL	O	Other
P4 COAL	RCF	Recreational Facilities
P4 COAL	ROD	Roads
P4 COAL	SGE	Pre-SMCRA Coal Research
P4 COAL	SMR	Surface Mining Reclamation
P4 COAL	STR	Public Infra-Structure
P4 COAL	UTL	Public Utilities
P4 COAL	WQC	Water Quality Control
P5 COAL	CNF	Conservation Facilities
P5 COAL	HST	Historic Purpose
P5 COAL	OSB	Open Space Benefits
P5 COAL	UTL	Public Utilities
P5 COAL	RCT	Recreation Purpose
P5 COAL	ROD	Roads
PF-411 (f)	UTL	Public Utilities
PF-411 (f)	STR	Public Infra-Structure
PF-411 (f)	ROD	Roads
PF-411 (f)	RCF	Recreational Facilities
PF-411 (f)	CNF	Conservation Facilities
PF-411 (f)	O	Other
H-411 (h)	H1	411(h) Non-Mining Expenditures
H-411 (h)	H2	411(h) Non-Mining Expenditures

List of Tribal Codes

Tribal Code	Tribal Name
BF	Blackfeet
CE	Cherokee
CH	Cheyenne River
CR	Crow
CW	Choctaw
CY	Northern Cheyenne
FB	Fort Berthold
FP	Fort Peck
HO	Hopi
JA	Jicarilla Apache
LP	Laguna Pueblo
MC	Muscogee (Creek)
NA	Navajo Nation
RB	Rocky Boys
SA	San Carlos Apache
SU	Southern Ute
UB	Uintah and Ouray
UM	Ute Mountain Ute
WM	White Mountain Apache
WR	Wind River

List of Ore Type Codes

Code	Ore Type
B	Bentonite
N	Cinnabar
Y	Clay
1	Coal
C	Copper
F	Feldspar
J	Fluorite
G	Gold
R	Graphite
I	Iron
L	Lead
K	Limestone
M	Marble
O	Other
A	Phosphate
P	Platinum
D	Sand/Gravel
E	Shale
S	Silver
H	Sulphur
T	Tungsten
U	Uranium
V	Vermiculite
Z	Zinc

List of Program (Funding) Codes

Code	Program Name
AFS	Alternate Funding Source
AMA	State AMD Set-Aside Program
BIL	Bipartisan Infrastructure Law
CH1	Certified Program 411 (h)(1)
CH2	Certified Program 411 (h)(2)
CIA	Coal Interim Site Funding
CLA	Clean Streams Initiative Funding
CSA	Coal Insolvent Surety Funding
EBI	Bipartisan Infrastructure Law Emergency
EMA	Federal Emergency Program
ENH	Enhancing AML Reclamation Rule Project
FRA	Federal Reclamation Program
MLR	Abandoned Mine Land Economic Revitalization Program
NCA	Non-Coal P1 P2 P3
NCF	Non-Coal 411 (f)
NH1	Certified Program 411 (h)(1) Non-Coal
NH2	Certified Program 411 (h)(2) Non-Coal
PVA	Other
RMA	Remining
RUA	Rural Abandoned Mine Program
SEA	State Emergency Program
SGA	Pre-SMCRA Coal State/Tribe P1 P2 P3
SGB	Pre-SMCRA Coal State/Tribe P3 ONLY
SGC	Pre-SMCRA Coal State/Tribe P4 ONLY
SGD	Pre-SMCRA Coal State/Tribe P5 ONLY
SGE	Pre-SMCRA Coal State/Tribe RESEARCH
SSA	State Future Reclamation Set-Aside
WCA	Watershed Cooperative Agreement Funding
WSB	403 (b) Water Supply Restoration Program
__STA__	STREAM Act Funding

CHAPTER 1

POLICY & RESPONSIBILITES

A. Purpose

This manual defines when and how the Abandoned Mine Land Inventory (Inventory) is to be used and maintained. It contains background information and Office of Surface Mining Reclamation and Enforcement (OSMRE) policy and responsibilities related to the Inventory. The Enhanced Abandoned Mine Land Inventory System (eAMLIS) is a computer system used to store and process the information in the Inventory.

This manual has been updated to accommodate the enactment of the Abandoned Mine Land Economic Revitalization (AMLER) Program (authorized annually in Appropriation Laws beginning in fiscal year (FY) 2016). Updates have also been made to accommodate changes to the Abandoned Mine Land (AML) Program and Inventory management resulting from the Bipartisan Infrastructure Law (BIL) (Pub. L. No. 117-58), also known as the Infrastructure Investment and Jobs Act (IIJA), enacted on November 15, 2021 and the Consolidated Appropriations Act of 2023 which amended Section 40701 of the BIL to allow States and Tribes to place BIL AML grant funds into a long-term abandoned mine land reclamation fund. Each of these laws impacts eAMLIS.

Both this manual and the eAMLIS User Guide contain specific instructions for updating and maintaining the web-based eAMLIS. Both documents are available and can be viewed at the OSMRE website [https://eamlis.osmre.gov].

B. Background

During the immediate years after enactment of the Surface Mining Control and Reclamation Act (SMCRA), OSMRE, States, and Tribes conducted surveys of eligible lands and waters and created individual databases, or inventories, of problems to be addressed under Title IV. OSMRE maintained a database containing these inventories, but it proved to be labor intensive, paper-laden, and hard to manipulate on a nationwide level. SMCRA was amended in 1990 to add Section 403I which required the Secretary of the Interior to maintain an Inventory of high priority coal sites and provide standardized procedures for States and Tribes to use in updating the Inventory. The 1990 amendment also required that the Inventory be updated on a regular basis, not less than annually, and authorized funding and technical assistance to the States and Tribes for this purpose. The 1990 amendment and the need for an automated nationwide Inventory led to the creation of earlier versions of eAMLIS as a compilation of the individual State, Tribe, Federal Reclamation Program (FRP), and Rural Abandoned Mine Program (RAMP) inventories of AML problems.

On December 20, 2006, SMCRA was amended to extend fee collections until 2021. Concurrent with the fee extension, Congress revised Title IV that added sources of program funding, emphasized high priority coal reclamation, and expanded OSMRE's

responsibilities towards implementation and management of the AML Inventory. Changes resulting from the 2006 AML Reauthorization amendments include:

1. Elevating the expenditure priority of Priority 3, land and water reclamation problems, adjacent to current and past Priority 1 and 2 problems.

2. Removal of the term General Welfare as criteria for qualifying for high priority reclamation.

3. Restricting Priority 3 reclamation until a State or Tribe has completed all the Priority 1 and 2 health and safety problems.

4. Reliance on the AML Inventory by the Secretary when initiating certification for States and Tribes that have completed all coal problems.

5. New sources of funding for both Uncertified and Certified States and Tribes.

6. Expansion of eligible activities for States and Tribes that have certified completion of all coal problems.

7. Elimination of Title IV as a source of funding for U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) RAMP under Section 406.

8. Requiring OSMRE approval of certain amendments to the Inventory, and

9. Requiring OSMRE to ensure that certain program expenditures strictly comply with priorities of Section 403(a).

The BIL included language that directly, or in some cases indirectly, impacted OSMRE. In addition to the extension of abandoned mine land (AML) fee collections and mandatory AML Grant distributions, $11.293 billion in new funding was authorized to be appropriated for deposit into the Abandoned Mine Reclamation Fund. Under the BIL, a portion of this new funding was designated to provide States and Tribes with the financial and technical assistance necessary for the purpose of making amendments to the AML Inventory.

The authority to collect the Title IV AML reclamation fee expires September 30, 2034, under the BIL. Fee rates for all coal sold, transferred, or used on or after October 1, 2021, are:

a. Surface-mined coal (except lignite) – 22.4 cents per ton

b. Underground-mined coal (except lignite) – 9.6 cents per ton

c. Lignite – 6.4 cents per ton

d. The alternative Ad-Valorem rate of 10 percent of the value for surface or underground and 2 percent of the value for lignite, continues to be in effect.

The eAMLIS documents unfunded high priority coal reclamation projects and records when funding is made available for each Problem Area (PA). eAMLIS also reports completed coal projects, plays a central role in making the determination that a State or Tribe has addressed all known coal problems, and records the accomplishments of States and Tribes completing non-coal projects and other activities. eAMLIS is OSMRE's primary source of information for documenting the amount of AML hazards completed by a State/Tribe AML program, and the extent and cost of AML problems remaining to be abated. The information is federally maintained, and the program States and Tribes provide the data using standardized procedures.

C. **Policy**

1. OSMRE fulfills its Inventory maintenance responsibilities (i.e., data validity, integrity, and consistency) through a system of policies, oversight procedures, and internal controls. Oversight activities are generally accomplished through performance evaluations which can be done at any point in the process.

2. Updated information, new PAs, and new high priority problems on existing PAs are added by the States and Tribes. OSMRE updates information for non- program States and Tribes. In the event that Congress provides non-Title IV funding under SMCRA Section 406 to the NRCS for RAMP reclamation, States and Tribes with approved AML reclamation programs will assist OSMRE by adding information supplied by NRCS on completed projects.

3. Grant funding may not be expended for the development, design, or reclamation of a Priority 1, 2, or 3 coal Problem Type feature unless it is entered and contained in eAMLIS. However, grant funding may be expended to conduct site investigations, perform Inventory duties, determine eligibility, or to determine the extent of the AML problem.

4. OSMRE approval is required to add any new Priority 1, 2, or 3 coal Problem Type feature to eAMLIS or to elevate an existing Priority 3 coal problem to a higher priority ("elevating P3s" applies to AML Fee-Based programs only). Site visits by OSMRE should be conducted as needed to ensure that proposed additions into eAMLIS accurately reflect field conditions. Once a coal Problem Type feature is contained in eAMLIS, States and Tribes may revise the description, cost estimate, and administrative data without OSMRE approval. States/Tribes cannot alter Completion data once it is entered into eAMLIS; however, States/Tribes may revise a problem type Program (fund) code during its Unfunded or Funded phases.

Refinements to a problem type's Program code should be done only after consultation with OSM's Regional or Field office staff (Approvers/Temporary Approvers). Any adjustments to a PAD's Program codes during Unfunded or Funded phases should be highly coordinated with OSM staff to ensure proper transition between and among fee-based codes and newer legislative codes such as BIL, AMLER, and Stream Act codes.

5. OSMRE may not issue an Authorization to Proceed (ATP) for any coal Problem Type feature not approved for inclusion in the Inventory. Coal problems that are being reclaimed must be shown as funded sometime between OSMRE's ATP process and the signing of a construction contract. (Emergency problems are the exception to this provision – emergency problems can immediately be entered into the Completion data fields after they are remedied.) Reclaimed Problem Type features are to be shown as completed when construction is complete.

6. The States and Tribes are responsible for administering their individual AML Programs and setting the priority of each proposed project in accordance with this manual and their approved reclamation program.

7. The existence of a PA in the Inventory does not constitute OSMRE concurrence with the eligibility determination. When reviewing priority determinations for coal Problem Type features entered into the Inventory prior to the date of issuance of this Directive, OSMRE will give deference to State and Tribe whenever feasible. In cases where coal problems entered prior to the issuance of this Directive appear to lack factual support and/or where they conflict with the guidance outlined in this Directive, OSMRE should coordinate with the State/Tribe to ensure that the appropriate corrections are made to eAMLIS.

8. States and Tribes that have not certified completion of all remaining coal problems are not required to maintain a complete Inventory of unfunded non- coal problems, or high priority post-SMCRA coal interim or coal insolvent surety problems. However, when these sites are to be addressed with program funding, the required data must be entered into eAMLIS no later than the ATP process. Coal interim or coal insolvent surety problems must be entered prior to the expenditure of funding for project development, design, or construction and must be updated at the time of funding and upon completion. Non-coal Problem Type features being addressed under Section 409 must be entered at the time of the ATP process and must be updated upon completion. Because information concerning unfunded high priority post-SMCRA coal interim and coal insolvent surety sites is used for planning purposes, OSMRE encourages States and Tribes to include such information in eAMLIS. Uncertified States and Tribes shall not record any accomplishments under the Program Areas or Problem Types of 411(h)(1) or 411(h)(2); these are for use by certified programs only.

9. States and Tribes that have certified completion of all remaining coal problems must

follow the eAMLIS update process described above when addressing any remaining or newly discovered Priority 1, 2, or 3 coal related problems. Certified States and Tribes expending funds that remain from distributions prior to October 1, 2007 (old funding), will enter the accomplishment data into the historically applicable Program Areas and Problem Types. Certified States and Tribes expending funds distributed after October 1, 2007 (new funding), should enter accomplishment data into one of the four new Program Areas, as applicable (Certified 411(h)(1) Coal, Certified 411(h)(2) Coal, Certified 411(h)(1) Non-Coal, or Certified 411(h)(2) Non-Coal). This will allow OSMRE to report on the accomplishments of the program with the new sources of funding received under the 2006 Reauthorization amendments and the BIL.

10. Certified States and Tribes are required to enter non-coal and non-mining related project accomplishments funded pursuant to SMCRA 411(h)(1) and 411(h)(2) into eAMLIS upon completion.

11. Certified States and Tribes must enter all coal problems into eAMLIS that are the subject of a plan submitted to OSMRE pursuant to 30 CFR § 875.14(b). The data entry must follow the procedural requirements of this Directive and include any necessary support documentation. Certified States must also respond to a series of questions within eAMLIS to verify and confirm that their PADs and coal problems are part of and included in their state reclamation plan: any "no" responses to individual questions must then provide a statement to justify why a PAD/problems are not part of the above referenced plan; a "yes" response to individual questions indicates that the PAD/problems are part of their state's plan.

12. The Inventory is used by OSMRE to determine which States and Tribes have sufficient Priority 1 and 2 coal problems to justify a grant distribution from the Federal Historic Coal Funds (Section 402(g)(5) of SMCRA) and to determine which are eligible for the minimum program make-up funds (Section 402(g)(8) of SMCRA) under the annual distribution of AML grant funds. To avoid disruptions or delays in awarding Historic Coal Funds or minimum program make-up funds, States and Tribes eligible for such funding are encouraged to enter all known and newly discovered Priority 1 and 2 coal related problems into the Inventory on a routine basis.

13. The Inventory is also used to verify that all coal problems have been funded when a State or Tribe, or the Secretary of the Interior on behalf of a State or Tribe, certifies under Section 411(a) of SMCRA, that all known coal reclamation has been completed, including post-SMCRA coal sites under 402(g)(4)(F).

14. All problems listed in the Inventory are expected to be funded consistent with available grant fund levels, the State or Tribe's approved reclamation plan, and the guidance outlined in this Directive. If, upon re-evaluation, a State, or Tribe, or OSMRE (for the FRP) finds that a problem does not meet the criteria for inclusion

in the Inventory, the problem should be removed. If such re-evaluation changes the priority of a problem, then the priority shown in the Inventory must be raised or lowered as appropriate.

15. The use of paper forms is eliminated for new additions and revisions to the Inventory. All required supporting documentation must be entered into the eAMLIS database to meet the requirements for completing a PAD. A complete submission will include the information entered into the eAMLIS data fields, Priority Documentation Forms, cost information, maps, and any supporting narrative. Priority Documentation Forms reproduced in a State/Tribe electronic format are acceptable as long as they contain complete information. Other information needed to document a PAD and associated problems should also be uploaded. States/Tribes shall add relevant updated Priority Documents, cost estimates, maps, and data field entries if they are revising and reassessing any legacy PADs. State submissions for authorization to proceed, OSMRE project related findings and other grant documents should not be uploaded to eAMLIS. eAMLIS is strictly a repository for documents supporting eAMLIS decisions.

D. Responsibilities

1. **Assistant Director for Program Support** (AD/PS) is responsible for developing and implementing Inventory policies and procedures, maintaining eAMLIS, and assigning and managing access to the system through approved user roles.

2. **Regional Directors** are responsible for coordinating activities. They are responsible for entering PA information in eAMLIS for all non-program States and Tribes and for projects they administer in their Regional Offices.

3. **Field Office Directors** (FODs) and **Field Division Managers** are responsible for approving all new Priority 1, 2, and 3 coal Problem Type features entered into the Inventory. This approval requirement extends to any Priority 3 Problem Type features being elevated to a higher priority. Approval authority may be delegated under the "Temporary Approver" role (see Section E below).

   The FODs and Field Division Managers are responsible for verifying the integrity and completeness of data entered in the Inventory by the States and Tribes. A complete submission will include the information entered into the eAMLIS data fields (units and costs), Priority Documentation Forms, cost information, maps, and supporting narrative. Priority Documentation Forms reproduced in a State/Tribe electronic format are acceptable as long as they contain complete information. Other information needed to document a PAD and associated problems should also be uploaded.

   The FODs and Field Division Managers are also responsible for conducting performance evaluations of State/Tribe conformance with the policies and

procedures set out in this Directive. They will advise States and Tribes of needed changes to Inventory practices, assist them in interpretation of Inventory guidance, and perform field visits when needed for technical assistance or for performance evaluation. The OSMRE Directive AML-22, Evaluation of State and Tribe Abandoned Mine Land Programs, contains the procedures for setting program measurement techniques, collecting and reporting core program data, and establishing Programmatic Agreements between OSMRE and the States/Tribes.

FODs and Field Division Managers must also enter reclamation information into eAMLIS for OSMRE's Watershed Cooperative Agreements.

4. **States and Tribes** are responsible for implementing procedures consistent with this Directive to maintain the Inventory for their State/Tribe. They are responsible for setting priorities in accordance with this Directive and with their approved AML reclamation program, and for advising OSMRE of any problems or issues they encounter when implementing the procedures under this Directive. States and Tribes are responsible for obtaining OSMRE approval for all Priority 1, 2, and 3 coal Problem Type features added to the Inventory This approval requirement extends to any Priority 3 Problem Type features being elevated to a higher priority (except for features being reclaimed with AMLER [MLR] or BIL funds, as MLR and BIL programs allow for Priority 3 features to be reclaimed independently if warranted). **Only refinements to the units or cost information of a Problem Type feature already contained in the Inventory are to be made by the States and Tribes without prior approval**.

   States and Tribes are responsible for ensuring that no Title IV funding is expended for the development, design, or reclamation of a Priority 1, 2, or 3 coal problem unless it is contained in eAMLIS. Title IV funding may be expended to conduct Inventory duties, determine eligibility, or to determine the extent of the AML problem. Finally, States and Tribes are responsible for developing and submitting PADs to eAMLIS in a timely manner to assist OSMRE in its responsibilities related to the proper distribution of Historical Coal Share Funding and minimum program make-up funds, and to properly maintain certification status.

5. **U.S. Department of Agriculture (USDA), NRCS** is responsible for RAMP. Responsibilities are set out in the chapter pertaining to RAMP.

E. eAMLIS User Roles & Designated System Contacts

1. **eAMLIS User Roles**: All persons accessing and using the eAMLIS system must have an approved user role assigned by an OSMRE system administrator. User roles establish access and operational rights for data entry, review and approval of coal problems, enhanced data queries, and administrative management of the system. Persons within other government agencies may be assigned roles commensurate with their access needs.

State, Tribe, OSMRE, and any other system users are responsible for providing the system administrators sufficient information to meet OSMRE requirements for obtaining and maintaining an approved user role and for adhering to OSMRE and Department of the Interior requirements related to system use. OSMRE may terminate or change a user's role without notification to the user to restrict access, address changes in employment, or to implement all requirements related to system security. OSMRE may, without notification to a user, delete or modify user information and any data additions, modifications, or document uploads that users have made to eAMLIS.

No defined user roles are required to access the public eAMLIS system at OSMRE's website.

The following user roles are available to OSMRE, State, and Tribe personnel:

2. **Administrator**: The Administrator user role is assigned to persons responsible for managing the system components on a daily basis. These persons are responsible for managing system-wide access by designating users, sending communications to all eAMLIS users, maintaining system documents, coordinating with contractors to resolve issues, providing technical support, system training, and reporting to management on system operational aspects.

3. **Preparer**: The Preparer user role is assigned to State, Tribe, and OSMRE personnel responsible for data entry and management. Preparer roles are restricted so as to only allow data entry and management for the specific State or Tribe program they represent. Dependent upon the administrative and management structure of the State or Tribe, there may be more than one assigned Preparer role per program.

4. **Approver**: The Approver user role is assigned to OSMRE FODs, OSMRE Field Division Managers, and other OSMRE office managers with primary responsibility for overseeing eAMLIS implementation requirements within a program. The Approver is responsible for approving or rejecting new Priority 1, 2, and 3 coal Problem Type features entered into the Inventory after the date of this Directive. This responsibility extends to any Priority 3 Problem Type features being elevated to a higher priority. The Approver is responsible for verifying the accuracy and completeness of data entered in the Inventory (including appropriate units and costs). Furthermore, Approvers are responsible for communicating with their regional state/Tribal partners to resolve and remedy any deficiencies and weaknesses in PAD entries, supporting documentation, and uploads. Approvers are responsible for assigning and managing the roles and responsibilities of Temporary Approvers.

5. **Temporary Approver**: The Temporary Approver user role is assigned by FODs, OSMRE Field Division Managers, and other OSMRE office managers with primary responsibility for overseeing eAMLIS implementation requirements within a

program. The Temporary Approver executes the duties of the Approver relative to approving or rejecting new Priority 1, 2, and 3 coal Problem Type features entered into the Inventory. This responsibility extends to any Priority 3 Problem Type features being elevated to a higher priority. The Temporary Approver is also responsible for verifying the accuracy and completeness of data entered in the Inventory (including appropriate units and costs). Moreover, Temporary Approvers are responsible for communicating with their regional state/Tribal partners to resolve and remedy any deficiencies and weaknesses in PAD entries, supporting documentation, and uploads.

6. **Reviewer**: The Reviewer user role is assigned to OSMRE personnel responsible for conducting reviews of system information, oversight, and for providing information and recommendations to persons in Approver or Temporary Approver roles. Persons assigned the Reviewer role will have access to review data entry information for the specific States/Tribes for which they have oversight responsibilities. Persons operating under the Reviewer role do not have the authority or ability to approve or disapprove specific submissions by Preparers.

7. **OSMRE Restricted User**: The OSMRE Restricted User role is assigned to OSMRE program personnel needing access to the internal eAMLIS system to obtain more detailed information than is available from the eAMLIS public query site.

8. **eAMLIS Contacts**: Users may establish -Contacts within eAMLIS to assist them in the performance of their responsibilities. A system contact contains contact information of a co-worker, consultant, an individual in another government agency, or anyone else who the user routinely relies on for advice or expertise. Users may designate system contacts so as to allow other eAMLIS users access to their contact information.

F. Updating the AML Inventory

The hard copy of the PAD form (OSM-76 form; OMB Number: 1029-0087) has been eliminated and all required data must be completed/updated in the new electronic OSM-76 form contained in eAMLIS. Complete information includes PAD data, narratives describing each AML problem, cost information, Priority Documentation, and any maps.

AML Program accomplishments and Performance Measures for OSMRE's Annual Report to Congress are taken directly from the eAMLIS system on October 1st of each year.

Completed reclamation information will be included in the annual reports only if entered into eAMLIS prior to that date.

Generally, the Inventory should be updated or reviewed according to the following schedules (see eAMLIS Submission Guide table).

1. **Unfunded**: Update or review:

   a. When new PAs are identified.

   b. When new Problem Type features occur or are identified in existing PAs.

   c. When estimated costs are revised substantially.

   d. When priority rankings change; and

   e. Prior to the expenditure of funding for the development or design of reclamation addressing Priority 1, 2, or 3 coal Problem Type features (including coal interim & insolvent surety sites), Section 403(b) Water Supply Replacement Projects, 30% Acid Mine Drainage Set Aside Projects, and OSMRE's Watershed Cooperative Agreement.

2. **Funded**: Update or review:

   a. **ATP or Contract Approval** – eAMLIS must be revised to reflect the "funded" status of AML problems. This may occur when the ATP is requested and approved, however, it must occur no later than when a construction contract is awarded.

   b. If revision occurs at the time of the ATP request/approval, the unfunded reclamation estimate may be moved to "funded" status. If the revision occurs at the time of contract award, the actual costs included in the contract should be used to update eAMLIS. If the costs were revised from unfunded to funded as part of the ATP process, the costs do not have to be revised when a contract is signed. However, it is desirable to do so if there is a significant difference between the costs entered after the ATP is approved and the cost of the contract.

   c. The following kinds of projects must be updated when funded:

      (1) Pre-SMCRA coal sites;

      (2) Coal interim permit sites;

      (3) Coal insolvent surety sites;

      (4) Non-coal projects conducted by uncertified States and Tribes;

      (5) AMLER; and

      (6) BIL

3. **Completed, Update, or Review**:

a. Upon project completion as required by 30 CFR §§ 885.20 and 886.21. Reclaimed Problem Type units and associated costs contained in the funded columns must be moved and revised, as necessary to the completed columns to reflect the final construction costs. To ensure that reclamation accomplishments are reported in the fiscal year in which they occurred, the entering of completion information should not be delayed until all contract and administrative actions have been completed and entered into eAMLIS by September 30th annually. All emergency problem completions (using Program codes SEA, EBI, or EMA) MUST include an Abate Date entry. This includes final units and costs for AMLER, BIL and BIL Emergency programs.

b. When construction is completed on projects within certain programs and the data has not been previously entered into the Inventory (i.e., State Program Emergencies, non-coal reclamation, 30% long-term AML reclamation fund (also referred to as the STREAM Act), or other projects completed by certified States and Tribes using funds provided under SMCRA 411(h)(1) or (h)(2)).

c. When the Preparer becomes aware that the AML problems have been abated through methods other than through SMCRA Programs (private reclamation, remining, or natural causes). See Chapter 2 for information about projects partially funded with non-Title IV monies, also referred to as Alternate Funding Sources (AFS). AML problems that are reclaimed by methods other than SMCRA Programs should be identified accordingly in eAMLIS.

d. To record long-term recurring reclamation costs. States and Tribes must update eAMLIS to account for ongoing long-term reclamation costs not included in the initial construction of a project. The timing of data entry into eAMLIS is determined according to the update requirements of the Program Area. If they are related to routine Priority 1, 2, or 3 coal projects, they should be entered at the time of the ATP. If the costs are in support of an AMD Set-Aside project, they should be entered at least annually along with a specific completion date. The costs should reflect direct expenditures associated with AML problem abatement (including chemicals, labor, repairs & maintenance including recapitalization, and sludge disposal). Consultant contracts and agency personnel expenditures should only be included if they are an essential component of the day-to-day abatement activity such as routine site labor. Design contracts and any agency management costs should not be entered. When entering long-term recurring costs into eAMLIS, the units of reclamation may change or remain the same. Each new recurring cost entry can and should include a revised flow rate (to accommodate

changes to a stream's dynamic conditions – periods of drought or extremely rainy seasons.) Each recurring entry should include a succinct statement in the Comments section of the PAD to briefly describe the changes and details of the entry/refinement.

(**Example** – A State used $475,000 of 30% AMD Set-Aside funding to construct a treatment facility to recover 17 miles of impacted stream. At the end of the project, the eAMLIS completion data module was completed to note the project, total construction cost ($475,000) and flow rate (in gallons per minute at the time of the entry/refinement). The following year, the State expended $56,000 for chemicals, labor, repairs & maintenance including recapitalization and sludge disposal. To meet OSMRE annual reporting deadlines, the eAMLIS completion information was updated just before October 1st to show the additional $56,000 with no changes in the flow rate of AMD treated. A comment was added in the completion narrative describing the nature of the work.)

G. **eAMLIS PAD Submission/Revision Guide**

Use this table as a guide to help understand when to add or edit and submit PAD entries for the Program types listed in the column on the left as they go through the different phases of eAMLIS funding workflows.

Planned Program	Unfunded	Funded	Completed
Pre-SMCRA Coal (P1& P2) State/Tribe AML Program & FRP (non-emergency) not currently in eAMLIS.	**X**	**X**	**X**
Projects under development/design for Pre-SMCRA Coal (P1, P2, P3 Problem Types and 403(b) Water Supply Replacement), "Enhancing AML Reclamation" Rule projects, interim and insolvency[1] site projects, and non-coal projects in uncertified States and Tribes.	**X**[2]	**X**	**X**
Non-Coal projects being conducted pursuant to a Section 409 Governor's request in uncertified States and Tribes.		**X**[3]	**X**
Projects, other than coal related reclamation, conducted by certified States and Tribes using funds provided under SMCRA 411(h)(1) or (h)(2).			**X**
State Program Emergencies. (Federal Emergency projects are entered the same but use the "Federal Emergency" program type "EMA")			**X**

[1] It is not required that Coal Interim Site or Coal Insolvent Surety Site problems be entered as unfunded, but minimum program States and Tribes may wish to do so to help assure they are eligible for the maximum amount available to them as a minimum program State and Tribe.

[2] It is required that prior to the expenditure of funding for project development or design, coal interim and coal insolvency problems be entered into the Inventory as "Unfunded."

[3] Non-coal problems being addressed under a Section 409 Governor's request must be entered into eAMLIS no later than the ATP process.

OSMREs Watershed Cooperative Agreement.	**X**	**X**	**X**
30% Acid Mine Drainage Set-Aside Program Note: Set-Aside projects are considered complete when site construction is finished.			**X**
Long-term Recurring Reclamation Costs (403(b) Water Supplies, 30% Acid Mine Drainage Set-Aside Program, etc.).[4]	**X**	**X**	**X**
Remining and Other (formerly "Private").			**X**
Abandoned Mine Land Economic Revitalization (AMLER)	X	X	**X**
Bipartisan Infrastructure Law (P1, P2, P3) of 2021 (BIL)	X	X	**X**
Bipartisan Infrastructure Law Emergencies (EBI)			**X**
STREAM Act (coal-related acid mine drainage, subsidence, or underground mine fires)[5]			**X**

H. State-Tribe-OSMRE PAD Development and Review Procedures

As provided in Section C, States and Tribes must obtain OSMRE approval prior to the expenditure of funding for project development or design for all Priority 1, 2, and 3 coal Problem Type features not in the Inventory. In addition, States and Tribes must submit for approval any Priority 3 coal Problem Type feature that is being elevated to a Priority 1 or 2 expenditure. **Only refinements to the units or cost information of a Problem Type feature already contained in the Inventory are to be made by the States and Tribes without approval** (see examples below). **Refinements and edits to the Inventory shall have an accompanying note in the PAD's Comments section. A note/comment in this section shall list the State/Tribal editor, date of edit, and a summary of the edits and refinements being made to the PAD and Problem Type features.**

States, Tribes, and OSMRE should coordinate to ensure that additions to eAMLIS are developed, submitted, and reviewed to minimize disruptions to the project design and construction process. **Supporting documentation must be uploaded to eAMLIS. At a minimum, uploads should include Priority Documentation Forms, cost information, maps and supporting narrative.** The supporting documents for each Problem Type feature being updated will have associated supporting documents attached (under Documents tab) to that specific Problem Type feature. Priority Documentation Forms reproduced in a State/Tribe electronic format are acceptable as long as they contain complete information. Other information needed to document PAD and associated

[4] Annual costs related to the ongoing long-term reclamation expenditures (see Section "3.d." above).

[5] It is required that projects funded exclusively using BIL long-term abandoned mine land reclamation funds be entered into eAMLIS upon completion. It is not required that these projects be entered as unfunded or funded. Although not required, States and Tribes may wish to add these projects to the Inventory prior to completion to provide a more comprehensive picture of the AML hazards faced by States and Tribes.

problems should also be uploaded.

1. **New Coal PAD Submission Requirements**: By definition, new coal PADs contain previously undocumented coal problems. Consequently, States and Tribes must submit the new PAD to OSMRE for approval of each new coal Problem Type feature. A complete submission includes all of the information needed to complete the on-line PAD form plus any supporting documents. Supporting documents for each Problem Type Feature include a Priority Documentation Form, cost justification, map, and all supporting narratives or documentation required by the Field Office to conduct a complete review of the PAD.

2. **Pre-Existing PAD Submission Requirements**: States and Tribes have some flexibility when modifying PADs that existed in the AML Inventory prior to the issuance of this Directive. They may upload the documents needed to support new coal Problem Type features and modifications to existing problems, or they may cease relying on the paper file entirely by fully uploading all PAD information, including the supporting documentation for any problems not being affected by the update.

   When updating an existing PAD, States and Tribes must submit complete information as required in number one above for each new coal Problem Type feature. In addition, States and Tribes must upload new Priority Documentation Forms, cost justifications, and other required information to document changes in priority or reclamation cost for problems that were contained in the AML Inventory prior to the issuance of this Directive. For each Problem Type feature being updated States/Tribes will upload associated supporting documents attached (under Documents tab) to that specific Problem Type feature.

   States and Tribes may continue to rely on existing paper files to support other pre-existing problems that are not being modified. They may transition the pre-Directive PAD to a full electronic format at the same time they add new coal Problem Type features or make substantive changes to existing problems, such as adding completion information. Updating eAMLIS to eliminate paper-based PADs will enhance system capabilities and program reporting. The following example illustrates the approval and documentation requirements for PADs containing new and pre-existing AML problems.

   a. **Example PAD** – A State decides to re-inventory an existing PA that already contains a 500-foot section of Priority 2 dangerous highwall (DH), a Priority 2 hazardous old mine building (HEF), and 9 acres of unreclaimed Priority 3 spoil (SA). Upon completion of the field review, the State determines that the existing DH is actually 750 feet long, the existing SA is actually 11 acres, and the cost to reclaim them is slightly higher than first estimated. In addition, the State determines that the HEF was accurately described and proposes no revision to that Problem Type feature. Finally, the State located

several problems not previously included in eAMLIS: a 300-foot section of Priority 2 DH, 4 acres of Priority 3 SA, a Priority 2 Portal (P) and a Priority 3 haul road (HR).

b. **Approval Required** – Under the example submission, the State must obtain OSMRE approval for the new 300-foot section of Priority 2 DH, the new 4-acre Priority 3 SA, the new Priority 2 P, and the new Priority 3 HR. To obtain OSMRE approval, the State must provide the required Priority Documentation Forms for the new section of Priority 2 DH and the Priority 2 P and supplementary cost calculations and map identifying all problems. Finally, for each Problem Type feature being updated States/Tribes will upload associated supporting documents attached (under Documents tab) to that specific Problem Type feature.

c. **Approval Not Required** – Under the example submission, the State is not required to seek OSMRE approval for the revised units and cost information for the specific Problem Type features DH and SA that were originally contained in eAMLIS. The State must, however, upload to eAMLIS, appropriate documentation for each specific problem type feature to support the revised units and cost estimates for these preexisting Problem Type features. Finally, if the State so chooses, it may upload all the remaining supporting information from the paper files for the pre-existing DH, HEF, and SA to convert the PAD to a fully electronic format no longer relying on the outdated paper OSM-76 Form. Priority Documentation forms are not required for Problem Type features that were entered into Legacy AMLIS prior to their use unless the existing Priority is being revised or reconsidered.

3. **OSMRE Review**: OSMRE must expeditiously review any proposed additions to eAMLIS and communicate to the State/Tribe any identified deficiencies or concerns. If condition warrants, OSMRE may reject the PAD and formally return it to the State/Tribe for revision or OSMRE may allow the State/Tribe to supplement the submission before making a final decision.

4. **OSMRE Approval**: To maintain a complete record of Agency decisions, approval actions related to PADs must be completed using the approval process contained within eAMLIS. Informal approvals may be provided during periods when the system is inactive due to maintenance or operational problems, however, all PAD approvals must be officially completed in the eAMLIS system.

CHAPTER 2

ENTERING INFORMATION INTO eAMLIS

After December 12, 2012, information required by this Directive shall be entered directly into eAMLIS. The PA constitutes the basic geographic and administrative unit for entering unfunded, funded, and completed problems into eAMLIS. The PAD shall include all of the information needed to adequately document the submission and to support a "paperless" review by OSMRE. A complete submission will include the information entered into the eAMLIS data fields plus uploaded documents attached to each new/revised Problem Type feature that contain supporting narratives, establish priorities (Priority Documentation Forms), describe how costs were derived, and provide geographical locations (maps).

Document files uploaded to eAMLIS should be of a type that allows review by commonly available software, such as Microsoft Word, Abobe.pdf, JPEG files, Excel database, or other files that use a commonly available viewer. It is important to ensure that a range of users can have access to the documents without purchasing special software.

Hard copy files including the paper version of the OSM-76 Form are only required for PADs entered into eAMLIS prior to December 12, 2012, where the information is incomplete. Future electronic updates to the eAMLIS are essential to effectively manage OSMRE approval procedures and to ensure that a consistent quality of information is available on all State and Tribe programs.

When entering a PAD in eAMLIS, follow the guidance outlined in the eAMLIS User Guide. Upon entering a PAD in eAMLIS follow each step by completing the blank data fields, checking the appropriate answer, giving a narrative response, and uploading the required support documentation. The eAMLIS User Guide is available on the "Home" screen in the "Documents" section.

A. Problem Areas (PAs) – New and Revised

Information is kept in the eAMLIS by PA, a uniquely defined geographic area. PAs are located within uniquely identified Planning Units (PUs) (see Section C. below and Chapter 7 for discussions of PUs and PAs). eAMLIS will record reclamation of the AML problems in a PA under one or more Program Areas (Pre-SMCRA Grant Program, Emergency Reclamation, AMD Set-Aside, etc.) Also, eAMLIS will record reclamation in the cases where non-SMCRA resources may be used as AFSs see Section B.3 below). States and Tribes should establish new or revise existing PAs as necessary to identify AML known problems and capture program accomplishments.

1. **Problem Area (PA)**: Establish a new PA or revise an existing PA that already contains AML problems. The PA has distinct geographic boundaries and does not overlap other PA boundaries or cross PU boundaries. See Chapter 7 for description of PAs and PUs. eAMLIS will allow users to record expenditures under multiple Program Areas (Pre-SMCRA Coal, Non-Coal, Certified Program 411(h)(1), etc.) in

a PA, if necessary.

Note for Certified States & Tribes*: When entering eAMLIS information for a certified State or Indian Tribal program, establish a new or revise an existing PA as necessary. However, to record non-mining related accomplishments, you may need to establish special PAs to properly record the accomplishments and expenditures of State/Tribe-wide efforts not tied to one specific geographic location. For example, a PA encompassing the State Capitol area might be used to record an instance where SMCRA Section 411(h)(2) funds are used to support State-wide teacher's salaries.*

2. **State/Tribe**: eAMLIS will use State two-letter Postal Service Codes and Tribal abbreviations as indicated below.

Legend
* = Certified Tribe
^ = Added December 2020

Tribal Abbreviation	Tribal Name
BF	Blackfeet
CE	Cherokee
CH	Cheyenne River
CR	Crow*
CW	Choctaw^
CY	Northern Cheyenne
FB	Fort Berthold
FP	Fort Peck
HO	Hopi
JA	Jicarilla Apache
LP	Laguna Pueblo
MC	Muscogee (Creek)^
NA	Navajo Nation*
RB	Rocky Boys
SA	San Carlos Apache
SU	Southern Ute
UB	Uintah and Ouray
UM	Ute Mountain Ute
WM	White Mountain Apache
WR	Wind River

3. **Problem Area (PA) Number**: The first two characters of a PA Number are letters and identify the State or Tribe. The next six characters are numerical and sequential. This number is assigned to the PA by the State/Tribe, or by OSMRE in non-program States/Tribes, and may only be used once. Certified States and Tribes may choose to designate a separate range of PA numbers to record non-mining related accomplishments completed with funding provided under SMCRA Sections 411(h)(1) or 411(h)(2)).

4. **Problem Area (PA) Name**: The PA name should describe the PA in a unique manner (i.e., geographically). No name should be repeated within the same State/Tribe. When entering non-mining related accomplishments, Certified States and Tribes may prefer to establish a PA name that reflects nature of the expenditures under SMCRA Sections 411(h)(1) or 411(h)(2).

B. **Program Areas & Alternate Funding Sources – New or Revised**

1. **Program Information for Uncertified Programs**:
Select the SMCRA Program Area that applies to the associated Problem Type being entered into eAMLIS. eAMLIS allows for multiple Program Areas to be recorded within each PA. If a Problem Type is reclaimed under a Program Area that is different from the one that was originally identified for the problem, revise accordingly.

To record non-SMCRA funding sources such as EPA grants, State funding, or in-kind services, considered AFS, refer sub-Section B.3 below; AFS.

a. **Abandoned Mine Land Economic Revitalization Program (Code: MLR)** – see also Chapter 11 for details on this Program. The AMLER Program supports local investment opportunities that provide for sustainable long-term rehabilitation of coalfield economies. OSMRE administers the AMLER program and provides eligible states and Tribes with AMLER grants and guidance on project eligibility criteria and reporting requirements.

b. **Bipartisan Infrastructure Law (Code: BIL)** – see also Chapter 12 for details on this Program. BIL funds will expand the AML Reclamation Program to meet the priorities described in the BIL and the Surface Mining Control and Reclamation Act of 1977, as amended.

c. **Bipartisan Infrastructure Law Emergencies (Code: EBI)** – see also Chapter 12 for details on this Program. Coal AML emergencies.

d. **STREAM Act (Code: STA)** – see page A-34 for more information on the Stream Act. Under the STREAM Act States and Tribes are authorized to retain up to 30% of the total amount of a BIL grant made annually and deposit that amount in a long-term AML reclamation fund. Funds can be used for: a) the abatement of the causes and the treatment of the effects of acid mine drainage resulting from coal mining practices, including for the costs of building, operating, maintaining, and rehabilitating acid mine drainage treatment systems; b) the prevention, abatement, and control of Subsidence; or c) the prevention, abatement, and control of coal mine fires. (Note that there are two coal mine fire problem types in AML-1 and eAMLIS: P1/P2 Surface Burning, and P1/P2 Underground Mine Fire.)

e. **Pre-SMCRA Coal State/Tribe – P1, 2, and 3 – (Code: SGA).** Program Area used to record Priority 1, 2, and 3 coal problems and accomplishments. This Program Area also contains historical reclamation accomplishments for Certified Programs reclaiming Priority 1, 2, and 3 non-coal Problem Type features with SMCRA funds received prior to the 2006 Reauthorization amendments.

f. **State Emergency Program – (Code: SEA).** Program Area used to record coal reclamation accomplishments when addressing AML emergency conditions under an approved (or pending) State Emergency Program. Select the AML problem that best reflects the emergency condition from the list of Priority 1 Problem Types.

g. **State AMD Set-Aside Program – (Code: AMA).** Program Area used to record coal mine drainage treatment accomplishments under a State AMD Set-Aside program approved under 30 CFR Part 876.

h. **State Future Reclamation Set-Aside – (Code: SSA).** Program Area used to record coal reclamation accomplishments under an approved Future Reclamation Set-Aside Program under 30 CFR Part 873.

i. **403(b) Water Supply Restoration Program – (Code: WSB).** Program Area (with corresponding Problem Type) used to record funds expended for the purpose of protecting, repairing, replacing, constructing, or enhancing facilities relating to water supply, including water distribution facilities and treatment plants to replace water supplies adversely affected by coal mining practices.

***Note**: Expenditures to replace an individual or defined group of adversely affected water supplies causing a danger to human health and safety should be recorded under the Pre-SMCRA Coal State/Tribe – P1, P2, or P3 (SGA) Program Area as a Priority 1 or Priority 2 Polluted Water Human Consumption (PWHC) problem if they meet the conditions outlined on the applicable Priority Documentation Form under Chapter 4.*

j. **Coal Insolvent Surety Funding – (Code: CSA).** Program Area used to record Priority 1 and 2 coal Problem Type features and accomplishments where mining occurred between August 3, 1977, and November 5, 1990, and the surety of the mining operator became insolvent during such period.

k. **Coal Interim Site Funding – (Code: CIA).** Program Area used to record Priority 1 and 2 coal Problem Type features and accomplishments where mining occurred between August 3, 1977, and the date of the approval of the permanent regulatory program of the State or Tribe in which the site is

located.

l. **Watershed Cooperative Agreement Funding – (Code: WCA).** Program Area used to record coal mine drainage treatment problems funded and completed with funding under the OSM Watershed Cooperative Agreement.

m. **Clean Streams Initiative Funding – (Code: CLA).** Program Area used to record coal mine drainage treatment problems funded and completed with funding under the Appalachian Clean Streams Initiative Program.

n. **Enhancing AML Reclamation Rule Project – (Code: ENH).** Program Area used to record Priority 1, 2, and 3 coal Problem Type features funded and completed under OSMRE's Enhancing AML Reclamation rule published in 1999. The only funds that should be recorded under this Program Area are the actual Title IV AML dollars expended by the program for construction purposes. Any moneys obtained from the sale of coal used to off-set reclamation costs must be entered under an AFS specifically created to record the non-SMCRA funding under the ENH Program.

(1) **ENH Project Example**: An AML Enhancement Rule project receives $50,000 of Title IV grant moneys and also generates $100,000 in moneys by the removal and sale of incidental coal. The eAMLIS must be updated to show the $50,000 under the "ENH" Program Area and $100,000 under a specific AFS dedicated to such projects. This process will allow OSMRE to report on both the Title IV expenditures (ENH Program Area) and the reclamation savings to the program (AFS).

o. **Federal Emergency Program – (Code: EMA).** Program Area used to record coal reclamation accomplishments when OSMRE addresses AML emergency conditions under a Federal Emergency Program. Select the AML problem that best reflects the emergency condition from the list of Priority 1 Problem Types.

p. **Federal Reclamation Program – (Code: FRA).** Program Area used to record coal reclamation accomplishments when OSMRE addresses Priority 1, 2, or 3 coal Problem Type features in States/Tribes without an approved AML reclamation program.

q. **Non-Coal (P1, P2, and P3) – (Code: NCA).** Program Area used to record Priority 1 non-coal problems addressed by uncertified States and Tribes under SMCRA Section 409 at the request of a State Governor or governing body of a Tribe. This Program Area also contains historical reclamation accomplishments for Certified Programs reclaiming Priority 1, 2, and 3 non-coal Problem Type features with pre-AML Reauthorization SMCRA funds

distributed prior to October 1, 2007.

r. **Non-Coal 411(f) – (Code: NCF).** This Program Area contains historical reclamation accomplishments for Certified Programs conducting public facility work under Section 411(f) with pre-AML Reauthorization SMCRA funds distributed prior to October 1, 2007.

s. **Other – (Code: PVA).** Program Area used to record coal reclamation accomplishments that do not fall within one of the defined Program Areas above. Please check with OSMRE before recording accomplishments under this Program Area to help promote consistency.

t. **Remining – (Code: RMA).** Program Area used to record remining accomplishments. If a Priority 1, 2, or 3 AML Problem Type features no longer exists due to remining, States and Tribes may record the accomplishment using this Program Area. Any funding recorded must be Title IV SMCRA moneys. If remining eliminates an AML problem, the cost recorded here will generally be zero, as no Title IV funding will be expended.

u. **Pre-SMCRA Coal State/Tribe P3 Only – (Code: SGB).** This Program Area contains historical reclamation accomplishments for Pas where only Priority 3 accomplishments exist. All Priority 3 information must be entered using the Program Area Pre-SMCRA Coal State/Tribe – P1, P2, P3 (Code: SGA). This Program Area is no longer used to enter information into eAMLIS.

v. **Pre-SMCRA Coal State/Tribe P4 Only – (Code: SGC).** This Program Area contains historical reclamation accomplishments achieved prior to its elimination under the 2006 Reauthorization amendments. Priority 4 expenditures were to be for the protection, repair, replacement, construction, or enhancement of water supply utilities, roads, recreation, and conservation facilities adversely affected by coal mining practices. (At the time of development of this manual, Priority 4 was also designated for recording SMCRA 411I public facility accomplishments by certified programs, however, no such data resided in Legacy AMLIS.)

w. **Pre-SMCRA Coal State/Tribe P5 Only – (Code: SGD).** This Program Area contains historical reclamation accomplishments achieved prior to its elimination under the 2006 Reauthorization amendments. Funding under Section 403(a)(5) was provided for the development of publicly owned land adversely affected by coal mining practices including land acquired for recreation and historic purposes, conservation, reclamation purposes, and open space benefits.

x. **Pre-SMCRA Coal State/Tribe – Research – (Code: SGE).** This Program Area contains no historical reclamation accomplishments. Originally, it was for uncertified programs that conducted research and demonstration projects previously eligible for AML funding under SMCRA Section 403(a)(4) and considered Priority 4 projects. The 1990 amendments to SMCRA deleted Research and Demonstration projects from the list of priorities and renumbered the five remaining priorities under Section 403(a). (Project accomplishments previously recorded as Priority 4 (Research and Demonstration) were to be found under this category, however, no accomplishments existed as of the date of this Directive.)

y. **Rural Abandoned Mine Program – (Code: RUA).** This Program Area contains historical reclamation accomplishments for the reclamation of Priority 1, 2, and 3 coal Problem Type features achieved with Title IV funding under the RAMP program administered by the NRCS of the USDA. Because the RAMP program may continue reclamation with non-SMCRA funding, any future accomplishments should be recorded under an AFS.

2. **Program Information for Certified Programs**: The 2006 amendments to SMCRA provided new funding sources for certified States and Tribes under Sections 411(h)(1) and 411(h)(2) of SMCRA. Certified States and Tribes began receiving the new Prior Balance Replacement Funds under SMCRA 411(h)(1) in 2008. In 2009, certified programs received both Prior Balance Funds and Certified in Lieu Funds; SMCRA Sections 411(h)(1), and 411(h)(2), respectively. Certified States and Tribes expending the new 411(h)(1) or (h)(2) funds should enter accomplishment data into one of the four new Program Areas, as applicable. When entering non-mining related projects, certified States and Tribes must provide information on the SMCRA funding source, project accomplishments, and project expenditures. This will allow OSMRE to report on the accomplishments of the program with the new sources of funding received under the 2006 amendments, AMLER and the BIL.

To record non-SMCRA funding sources, such as EPA grants, State funding, or in-kind services considered AFS, refer to sub-Section B.3 below; AFS.

Pre-Reauthorization Funding

Reclamation Type	Program Area	Problem Type
Coal Reclamation to Maintain Certification	Pre-SMCRA Coal State/Tribe- P1, P2, or P3	Choose appropriate P1, P2, or P3 Problem Type
Non-Coal Reclamation	Non-Coal (P1, P2, or P3)	Choose appropriate P1, P2, or P3 Problem Type
Public Facility or Infrastructure Projects	Non-Coal 411(f)	Choose appropriate PF Problem Type

Emergency Abatement	State Emergency Program	Choose appropriate P1 Problem Type

Post-2006 Reauthorization Funding

Using the Program Areas below, Certified Programs record accomplishments achieved with Prior Balance Funds and Certified In-Lieu Funds (411(h)(1), and 411(h)(2), respectively) distributed after October 1, 2007, under Section 411 of SMCRA. Refer to the table at the bottom of this section for a guide to recording Program Areas and Problem Types for specific expenditures.

a. **Certified Program 411(h)(1) – (Code: CH1).** Select this Program Area along with the appropriate coal Problem Type to record coal reclamation accomplishments when maintaining certification status with funding provided under Section 411(h)(1) of SMCRA (***see discussion below for entering State Emergency Program accomplishments***).

b. **Certified Program 411(h)(2) – (Code: CH2).** Select this Program Area along with the appropriate coal Problem Type to record coal reclamation accomplishments when maintaining certification status with funding provided under Section 411(h)(2) of SMCRA (***see discussion below for entering State Emergency Program accomplishments***).

c. **Certified Program 411(h)(1) – Non-Coal (Code: NH1).** When using 411(h)(1) funds, select this Program Area to record accomplishments in the reclamation of minerals other than coal, the impacts related to mineral development, or when conducting non-mining related expenditures.

(1) Minerals Other Than Coal – Expenditures made to address the health, safety, and environmental impacts of minerals other than coal should be recorded under this Program Area along with the appropriate health, safety, or environmental Problem Type (see Priority 1, 2, and 3 Problem Type descriptions under Chapter 3, below).

(2) Impacts of Mineral Development – Expenditures consistent with mineral impact abatement and public facility enhancement activities under Section 411(f) (Priority F) should be recorded under this Program Area along with the PF Problem Type in Section H, below).

(3) Non-Mining Related Expenditures – Expenditures for non-mining related purposes should be recorded in this Program Area. Select the "Non-Mining Related Expenditures" Problem Type and enter a concise narrative describing the activity. Examples could include State infrastructure, government salaries for a specific program, health/human services, education, business grants, etc.

d. **Certified Program 411(h)(2) – Non-Coal (Code: NH2).** When using 411(h)(2) funds, select this Program Area to record accomplishments in the reclamation of minerals other than coal, the impacts related to mineral development, or when conducting non-mining related projects.

(1) Minerals other than coal – Expenditures made to address the health, safety, and environmental impacts of minerals other than coal should be recorded under this Program Area along with the appropriate health, safety or environmental Problem Type (see Priority 1, 2, and 3 Problem Type descriptions under Chapter 3 below).

(2) Impacts of Mineral Development – Expenditures consistent with mineral impact abatement and public facility enhancement activities under Section 411(f) (Priority F) should be recorded under this Program Area along with the PF Problem Type in Section H below).

(3) Non-Mining Related Expenditures – Expenditures for non-mining related purposes should be recorded in this Program Area. Select the "Non-mining Related Expenditures" Problem Type and enter a concise narrative describing the activity. Examples could include State infrastructure, government salaries for a specific program, health/human services, education, business grants, etc.

By entering information under one of the four programs referenced above, certified States and Tribes will ensure that eAMLIS information is properly encoded to report accomplishments achieved with post-2006 Reauthorization funding.

e. **Certified Program Emergency Projects.** Emergency funds provided to certified programs are derived from coal fees and distributed under Section 402(g) of SMCRA. Consequently, expenditures related to emergency reclamation in Certified States and Tribes have been and will continue to be entered under the Program Area "**State Emergency Program**" (Code: **SEA**) with the costs and units allocated to the appropriate Priority 1 Problem Types.

Post-IIJA (BIL) Reauthorization Funding

Bipartisan Infrastructure Law (BIL) (Pub. L. No. 117-58), also known as the Infrastructure Investment and Jobs Act (IIJA), enacted on November 15, 2021, extends new fee collections through September, 2035.

Three new Program areas were developed out of the IIJA/BIL and STREAM Act legislation respectively:

1. Bipartisan Infrastructure Law (BIL) program funding is different than fee-based programs in several ways:
    a. BIL funds cannot be used to reclaim non-coal problems.
    b. BIL funds may be used on P1, P2, or P3 problem types. This includes standalone P3s that previously could not be reclaimed except through elevation and Adjacency. Now, a P3 problem type (including AMD treatment projects) can utilize the BIL program code without relying on Adjacency or elevating the P3 problem to a P2 or P1 relationship.
    c. BIL funds may be used on AMD treatment problems that are or are not in a Qualified Hydrologic Unit (QHU). (Fee-based programs still require that AMD treatment problems are within QHUs.)
    d. Bipartisan Infrastructure Law funds may be used on emergency problems. For this unique circumstance see below (2.a) regarding discussion of the EBI program code designated for BIL Emergency problems.
2. Emergency problems can be abated using Bipartisan Infrastructure Law funds under the new Program code: EBI (also known as Bipartisan Infrastructure Law Emergencies).
    a. For any emergencies using the EBI code, follow the same data entry procedures as the State Emergency Program (SEA) on page 28. Enter the P1 problem type and then select "EBI: Bipartisan Infrastructure Law Emergency" in the Program dropdown menus if the state/Tribe is utilizing BIL funds to abate an emergency.
3. Under the STREAM Act States and Tribes are authorized to retain up to 30% of the total amount of a BIL grant made annually and deposit that amount in a long-term AML reclamation fund. Funds can be used for:
    a. the abatement of the causes and the treatment of the effects of acid mine drainage resulting from coal mining practices, including for the costs of building, operating, maintaining, and rehabilitating acid mine drainage treatment systems;
    b. the prevention, abatement, and control of Subsidence; or
    c. the prevention, abatement, and control of coal mine fires. (Note that there are two coal mine fire problem types in AML-1 and eAMLIS: P1/P2 Surface Burning, and P1/P2 Underground Mine Fire.)

Post-2006 Reauthorization Funding

Reclamation Type	Program Area	Problem Type
Coal reclamation to maintain certification using SMCRA 411(h)(1) funds	Certified 411(h)(1)	Choose appropriate P1, P2, or P3 Problem Type
Coal reclamation to maintain certification using SMCRA 411(h)(2) funds	Certified 411(h)(2)	Choose appropriate P1, P2, or P3 Problem Type
Non-coal reclamation using SMCRA 411(h)(1) funds	Certified 411(h)(1) Non-Coal	Choose appropriate P1, P2, or P3 Problem Type

Non-coal reclamation using SMCRA 411(h)(2) funds	Certified 411(h)(2) Non-Coal	Choose appropriate P1, P2, or P3 Problem Type
Public facility or infrastructure projects addressing impacts of mineral development using SMCRA 411(h)(1) funds	Certified 411(h)(1) Non-Coal	Choose appropriate PF Problem Type
Public facility or infrastructure projects addressing impacts of mineral development using SMCRA	Certified 411(h)(2) Non-Coal	Choose appropriate PF Problem Type
Non-Mining related activities using SMCRA 411(h)(1) funds	Certified 411(h)(1) Non-Coal	Choose "Certified 411(h)(1) Non-Mining Expenditure" and enter description as required
Non-Mining related activities using SMCRA 411(h)(2) funds	Certified 411(h)(2) Non-Coal	Choose "Certified 411(h)(2) Non-Mining Expenditure" and enter description as required
Emergency Abatement	State Emergency Program	Choose appropriate P1 Problem Type

Post-2021 Reauthorization Funding

Reclamation Type	Program Area	Problem Type
Coal reclamation	Bipartisan Infrastructure Law (BIL)	Choose appropriate P1, P2, or P3 Problem Type
Coal reclamation emergencies	Bipartisan Infrastructure Law Emergencies (EBI)	Choose appropriate P1 Problem Type
AMD treatment P1/P2 Subsidence P1/P2 Surface Burning	STREAM Act (STA)	Choose appropriate P1, P2, or P3 Problem Type

Special Funding Programs

For more information on the Abandoned Mine Land Economic Revitalization (AMLER) program please see Chapter 11.

Reclamation Type	Program Area	Problem Type

Economic Revitalization* (and AML reclamation or coal emergencies)	Abandoned Mine Land Economic Revitalization (AMLER)	Choose appropriate P1, P2, or P3 Problem Type

*Requires an economic and/or a community development component.

3. **Alternate Funding Sources**: Whenever reclamation is accomplished by non-SMCRA funding sources, the reclamation costs and associated units must be entered as an AFS. States and Tribes may create, modify, and delete AFS to capture non-SMCRA funding used in reclamation. Typical AFS are grants from the Environmental Protection Agency (EPA), State/Tribe grants or funds, and in-kind services provided by citizen groups. In addition, for projects approved under the Enhancing AML Reclamation Rule, the revenues generated from the sale of coal that are used to off-set the cost of reclamation, must be entered as an AFS.

   Reclamation project costs and reclamation units should be allocated between the traditional Program Areas of funding and any AFS to properly represent program accomplishments. For example, if the EPA, State water quality grant funds, and AMD Set-Aside funding (AMA) are used to restore water quality to a stream, the eAMLIS PA would have one SMCRA funding source (AMA), and two additional AFS; each with allocated units and costs that, when totaled, represent all project accomplishments achieved.

4. **Administrative And Site Location Information**

   a. **State/Tribe**: Identify the applicable State or Tribe for the AML Problems being recorded.

   b. **Planning Unit (PU) Number and Name**: This number and corresponding name is assigned by the State/Tribe or by OSMRE in non-program States/Tribes to a uniquely defined geographic area. State/Tribe offices may have map overlays that identify the existing PU boundaries on a U.S. Geological Survey State Hydrological Unit Map. These overlays may also be found in OSMRE Field Offices. As discussed throughout this manual, individual AML problems within specific PAs and PUs will be described and recorded in eAMLIS. See Chapter 7 for additional instructions for creating PUs and PAs.

   c. **Date Prepared**: The date the PA was initially created.

   d. **Date Revised**: The date the PA was last revised.

   e. **Prepared by**: The name of the individual who entered the information.

f. **Telephone Number**: The telephone number (including area code) of the individual who entered the information.

g. **Field Contact Name / Telephone Number**: If necessary, enter the name and telephone number of the field representative OSMRE reviewers may contact for questions about the site.

h. **Coordinates**: Locate the latitude and longitude point at the geographic center of the PA and enter the coordinates into the appropriate blank. Enter the coordinate in degrees, minutes, and seconds or in decimal degrees in the appropriate blank. Completing this activity will auto-fill the other important location information such as county, watershed, Federal Information Processing Standards (FIPS) Code, Congressional District, and Hydrologic Unit Code (HUC).

i. **County**: The County in which the PA (PA) is located.

j. **Type of Mining**: Identify the type of mining activity found in the PA. The choices are Surface, Underground, both Surface and Underground, or Processing.

k. **Surface Owner**: Identify the type of surface ownership of lands in the affected area. For applicable owner(s) indicate percentage (%) of ownership based on acreage of affected area. Total percentage indicated must equal 100%. Figures must be rounded to the nearest whole number.

l. **Ore Type**: Select the ore type along with a Priority 1, 2, or 3 Problem Type.

C. **Problem Priority**

When entering unit and cost information for each AML problem, eAMLIS will require you to select from a list that has problem types with an associated funding Priority. Initially, Section 403 of SMCRA recognized ten funding priorities: Priority 1 through Priority 10. Over the years, legislative changes have reduced the range of priorities to where, currently, after the 2006 Reauthorization, Section 403(a) of SMCRA recognizes three funding priorities: **Priority 1, Priority 2, and Priority 3**. These are commonly referred to as the health and safety priorities (Priority 1 & 2) and the land and water resource impacts priority (Priority 3). [These are further often referred to as simply P1s, P2s, and P3s.]

To improve data management and reporting and to maintain access to historical information in eAMLIS, the system recognizes three active priorities (P1, P2, and P3) and two historical priorities (Priority 4 and 5). In addition, we have assigned Priority "codes" to other problem types to facilitate data management and to improve query capabilities. These are Priority "B" for 403(b) Water Supplies, Priority "F" for accomplishments under SMCRA 411(f) and Priority "H" for 411(h)(1) and 411(h)(2) Non-mining Expenditures.

Federal and State Emergency projects completed under Section 410 of SMCRA should select the Priority 1 Problem Type that best reflects the problem being addressed.

Once you have selected the appropriate Problem Type/Priority, you will enter the unit/cost information and upload the required supporting documentation, Priority Documentation Form, cost justification, map, etc.

The following explains the type of problem priority and documentation requirements.

1. **Priority 1 (P1)**: An AML problem meeting the conditions under Section 403(a)(1) [coal], or 411(c)(1) [non-coal] of SMCRA concerning the protection of public health, safety, and property from extreme danger of adverse effects of mining practices or adjacent land and water reclamation. Projects being recorded under State Emergency Program (SEA), Federal Emergency Program (FEA), and Bipartisan Infrastructure Law Emergencies (EBI) should select the Priority 1 Problem Type that best reflects the problem being addressed.

   To support and document a Priority 1 designation, the Preparer will upload to eAMLIS a completed electronic Priority Documentation Form(s) for ***each*** AML problem being entered into eAMLIS. This form contains a series of questions that must be answered to demonstrate that the AML problem meets the conditions for a Priority 1 designation (see Chapter 4 for more information). Priority Documentation Forms are ***not*** required for adjacent land and water resources/coal reclamation Problem Types, nor are they required for Emergency Program activities (using codes: SEA, FEA, or EBI). See discussion under Priority 3, below, for entering land and water reclamation adjacent to a health and safety problem.

2. **Priority 2 (P2)**: An AML problem meeting the conditions under Section 403(a)(2) [coal] or 411(c)(2) [non-coal] of SMCRA concerning the protection of public health and safety from adverse effects of mining practices or adjacent land and water reclamation.

   To support and document a Priority 2 designation, the Preparer will upload to eAMLIS a completed electronic Priority Documentation Form(s) for ***each*** AML problem being entered into eAMLIS. This form contains a series of questions that must be answered to demonstrate that the AML problem meets the conditions for a Priority 2 designation (see Chapter 4 for more information). Priority Documentation Forms are ***not*** required for adjacent land and water resources coal reclamation Problem Type. See discussion under Priority 3 below for entering land and water reclamation adjacent to a health and safety problem.

3. **Priority 3. (P3)**: An AML problem category meeting the conditions under Section 403(a)(3) [coal] or 411(c)(3) [non-coal] of SMCRA concerning the restoration of land and water resources and the environment previously degraded by adverse effects of mining practices. Priority 3 is determined by the State or Tribe based upon the

assessment that the site is inadequately reclaimed and is degrading land or water resources. ***There are no Priority Documentation Forms for land and water resources/coal reclamation Problem Type, however, Chapter 6 (Estimating and Documenting AML Reclamation Costs) contains a supplemental sheet to upload to eAMLIS in support of Priority 3, reclamation cost estimates.***

4. **Adjacent Land and Water Resources**: The 2006 amendments to SMCRA reclassified certain land and water reclamation costs as higher priority expenditures. (Adjacency is not a necessary consideration when utilizing AMLER, BIL, or STREAM Act program funds. In short, Adjacency only applies to traditional fee-based program funds and codes.) Consequently, eAMLIS allows States and Tribes to record, as a Priority 1 or 2 expenditure, the costs of land and water restoration that are geographically contiguous (adjacent) to a site that contained or still contains a Priority 1 or Priority 2 health and safety problem (see Chapter 11 for definitions of adjacent land and water reclamation and geographically contiguous).

   For example, Priority 3 spoil that is adjacent to a Priority 1 DH may now be recorded as Priority 1 expenditure. In addition, a Priority 3 mine opening (MO) that is adjacent to a Priority 2 hazardous facility may be recorded as Priority 2 expenditure. As noted above, this also applies to Priority 1 and 2 sites previously completed under a State or Tribe program. For example, if a State completed the reclamation of a Priority 2 dangerous refuse pile embankment in the late 1980's but was unable to address an adjacent Priority 3 dilapidated load-out structure at that time, the estimated cost to reclaim the structure may now be recorded in the eAMLIS as an unfunded Priority 2 cost.

   eAMLIS provides an automated approach to designating that specific Priority 3 Problem Type features are adjacent to specific a Priority 1 or 2 Problem Type features. Priority documentation forms are not required for the Priority 3 Problem Types features being elevated based upon adjacency.

5. **Adjacency Not Applicable to Non-Coal Problems** – When conducting Priority 1 projects under Section 409 of SMCRA at the request of the Governor, Priority 3 non-coal problems adjacent to a high priority non-coal problem must not be elevated to the higher priority expenditure level. Because the 2006 AML Reauthorization targeted funding towards the completion of all remaining coal problems, ***it is not appropriate to elevate non-coal Priority 3 land and water resources to the higher priority of a geographically contiguous health and safety problem.*** (Adjacency is also not necessary when considering AMLER, BIL, and STREAM Act programs.)

6. **Priority 4 (P4)**: Congress eliminated Priority 4 as part of the December 2006 AML Reauthorization legislation. Please contact the eAMLIS administrator before attempting to enter any Priority 4 accomplishments. Priority 4 expenditures were those related to the protection, replacement, construction, or enhancement of public facilities adversely affected by coal mining practices. While eAMLIS no longer

allows data entry for Priority 4 problems, eAMLIS does contain historic accomplishments with funding received prior to the 2006 Reauthorization sources. It should be noted here for historical clarity that Legacy AMLIS allowed the entry of accomplishments for Section 411I projects under Priority 4. The Section 411I projects were those related to the protection, repair, replacement, construction or enhancement of water supply utilities, roads and other such facilities serving the public adversely affected by mineral mining and processing practices, and the construction of public facilities in communities impacted by coal or other mineral mining or processing practices as they relate to the priorities stated in SMCRA 411I.

7. **Priority 4 (Pre-SMCRA Coal Research)**: As of the date of this Directive, no Priority 4 Pre-SMCRA Coal State/Tribe Research existed in the AML Inventory. In addition, no further reporting should occur under this Priority. Research and demonstration projects were once eligible for AML funding under SMCRA Section 403(a)(4) and considered Priority 4 projects. The 1990 amendments to SMCRA deleted Research and Demonstration projects from the list of priorities and renumbered the five remaining priorities under Section 403(a). At the time, OSM proposed to record Priority 4 (Research and Demonstration) completed prior to the 1990 amendments under the category "Research." No such accomplishments were ever recorded.

8. **Priority 5 (P5)**: Congress eliminated Priority 5 as part of the December 2006 AML Reauthorization legislation. Please contact the eAMLIS administrator before attempting to enter any Priority 5 accomplishments. Priority 5 expenditures were for the development of publicly owned land adversely affected by coal mining practices, including land acquired for recreation and historic purposes, conservation, reclamation purposes, and open space benefits. While eAMLIS no longer allows data entry for Priority 5 problems, eAMLIS does contain historic accomplishments with funding received prior to the 2006 Reauthorization sources. As of the date of this Directive, the only Priority 5 accomplishments recorded were in Wyoming and Virginia.

9. **Priority F (PF)**: Prior to AML Reauthorization and Legacy AMLIS modernization, Certified States and Tribes entered accomplishments under SMCRA 411(f) as "PF" Problem Types. Section 411(f) expenditures were those made because the Governor of a State or the head of a governing body of a Tribe determines there is a need for activities or construction of specific public facilities related to the coal or minerals industry in an area impacted by coal or minerals development. As of the date of this Directive, Wyoming, Alaska and the Hopi and Navajo Nation have recorded accomplishments under Priority F.

Certified States and Tribes will continue to record post-AML Reauthorization expenditures for the construction of specific public facilities related to the coal or minerals industry in areas impacted by coal or minerals development as a Priority F accomplishment. To do so, they will select the appropriate Priority F Problem Type

and then also select the Program Area funding source (Certified Program 411(h)(1) Non-Coal or 411(h)(2) Non-Coal). By selecting the appropriate PF Problem Type in conjunction with a Program Area of either Certified Program 411(h)(1) Non-Coal or 411(h)(2) Non-Coal, eAMLIS information will be properly encoded to report these types of public facility related accomplishments achieved with the post-2006 Reauthorization funding.

There are no Priority Documentation forms associated with this Priority. Relevant information, such as completion date, costs, and information on the scope of work is entered into eAMLIS through the completion data module.

10. **Priority H (H)**: This priority is being established with the issuance of this Directive to record AML expenditures and accomplishments related to non-mining expenditures by Certified States and Tribes. Under rulemaking completed by OSMRE in November 2008, certified programs have the option of expending post-AML Reauthorization funds received under Sections 411(h)(1) and 411(h)(2) for non-mining related activities, such as transportation, education, or energy development. eAMLIS will now record these non-mining expenditures as completed costs so that the information is available for annual reporting to Congress.

    There are no Priority Documentation forms associated with this priority. Relevant information, including final costs and information on the scope of work, is entered into eAMLIS through the completion data module.

11. **Priority B (PB) Water Supplies (WS) – Section 403(b)**: This priority (and corresponding Problem Type/Program Area) is being established with the issuance of this Directive to record AML expenditures and accomplishments under Section 403(b) for the for the purpose of protecting, repairing, replacing, constructing, or enhancing facilities relating to water supply, including water distribution facilities and treatment plants, to replace water supplies adversely affected by coal mining practices. Because this activity is authorized by SMCRA Section 403(b), there is no formal health, safety, or environmental priority associated with the work. Chapter 4 contains a Water Supply Restoration Documentation Form to help guide information collection and to support data entry into eAMLIS. **The WS Restoration Documentation Form must be uploaded to eAMLIS**. An important distinction to note here is that Priority B Water Supply expenditures differ from those made to address Priority 1 or 2 health and safety problems under Sections 403(a)(1) and (a)(2) because of polluted water. Projects that specifically address health and safety problems should be recorded as a Priority 1 or 2 based upon the results of completing the required Priority Documentation Form for PWHC. If completion of the PWHC Priority Documentation Form does not yield a Priority 1 or 2 designation, the activities may be evaluated to determine if they qualify as a Priority B WS problem under SMCRA 403(b) (see WS Problem Type under Chapter 3 below and the WS Documentation Form in Chapter 4).

12. **Emergencies – BIL Emergencies, State Emergency Program & Federal Emergency Program**: For purposes of eAMLIS, Federal Emergencies (Code: EMA), BIL Emergencies (Code: EBI), and State Program (Code: SEA) emergency projects are recorded when work is completed and should be recorded using the Priority 1 Problem Type that most accurately reflects the emergency condition. There are no Priority Documentation Forms required to enter problems as an emergency project. See Chapter 9 of this manual for instructions for entering emergency reclamation into the Inventory. (Note that although Priority Documentation Forms are not required for Emergencies, a Priority Documentation Form may already exist in eAMLIS for problems that were previously not considered an emergency but site conditions deteriorated rendering that problem an emergency requiring immediate remedies.)

D. **Priority 1, 2, & 3 Problem Type Unit/Cost Information**

eAMLIS requires unit and cost information for all Priority 1, 2, and 3 Problem Type features. Each entry will require that the units and cost be assigned to a Program Area (funding source). All Priority 1, 2, and 3 costs/units should be distributed among Problem Types (see Chapter 3) and the three status categories: unfunded, funded, and completed, as described below.

The following are the Problem Types and applicable units for recording costs:

Priority 1 & 2 Problem Types

Code	Description	English Work Unit	Metric Work Unit
CS	Clogged Streams	Miles	Kilometers
CSL	Clogged Stream Lands	Acres	Hectares
DH	Dangerous Highwalls	Feet	Meters
DI	Dangerous Impoundments	Count	Count
DPE	Dangerous Piles and Embankments	Acres	Hectares
DS	Dangerous Slides	Acres	Hectares
FLD	Flooding	Acres	Hectares
GHE	Gases: Hazardous/Explosive	Count	Count
UMF	Underground Mine Fires	Acres	Hectares
HEF	Hazardous Equip & Facilities	Count	Count
HWB	Hazardous Water Bodies	Count	Count
IRW	Industrial/Residential Waste	Acres	Hectares
P	Portals	Count	Count
PWAI	Polluted Water: Agricultural & Industrial	Count	Count
PWHC	Polluted Water: Human Consumption	Count	Count
S	Subsidence	Acres	Hectares
SB	Surface Burning	Acres	Hectares
VO	Vertical Openings	Count	Count

Priority 3 Problem Types

Code	Description	English Work Unit	Metric Work Unit
SA	Spoil Area	Acre	Hectare
BE	Bench	Acre	Hectare
PI	Pits	Acre	Hectare
GO	Gob	Acre	Hectare
SL	Slurry	Acre	Hectare
HR	Haul Road	Acre	Hectare
MO	Mine Opening	Count	Count
SP	Slump	Acre	Hectare
DH	Highwall	Feet	Meter
EF	Equipment/Facility	Count	Count
DP	Industrial/Residential Waste	Acre	Hectare
WA	Water Problems	Gallons	Liter
O	Other	Count	Count
WS	Water Supplies	Count	Count

ADJACENCY: Please refer to the discussion below on adjacent land and water resources to record restoration costs of Priority 3 land and water problems that are adjacent to Priority 1 or 2 problems. (NOTE: Adjacency only applies to the AML Fee-Based funded problems; it does not apply to BIL Program funded problems.)

1. **Reporting Problem Type Cost and Units**: Distribute the cost and applicable units among the identified Problem Types features. ***Round units to one decimal place. Round dollar values to nearest whole dollar. Attributing all the project cost to one Problem Type feature is only appropriate if other Problem Types were incidental to the reclamation. In other words, all Priority 1 and 2 features should have unique costs structures, while Priority 3 features may, if incidental to the Priority 1 or 2 Problem Type, be attributed to a P1 or P2 feature.*** For example, if a SA is needed to backfill a DH, all costs should be allocated to the DH and zero costs to the SA.

2. **Dividing Costs and Units Among Several Problem Types**: When two or more Problem Type problems are reclaimed at the same time, the Preparer should use available information to divide the costs and units between the reclaimed Problem Type features and/or funding types. For example, when reclaiming Problem Type that are closely related, such as a Hazardous Water Body (HWB) or a Haul Road (HR) associated with a DH, you would identify the costs for draining with the water body and assign a cost amount to the Problem Type HWB. Regrading and revegetation costs associated with reclaiming the haul road should be assigned to

that feature. The DH should be assigned the backfilling, regrading, and revegetation costs specific to its project area. Finally, common, or shared costs, such as mobilization, demobilization, and sediment control can be prorated accordingly.

3. **Cost Documentation**: The cost numbers entered into eAMLIS must be supported by more detailed information that describes how the costs were developed. Costs for unfunded projects may follow the Cost Guidelines (Chapter 6) or reflect more refined estimates developed by the State or Tribe using program specific information. Costs for funded projects may follow the Cost Guidelines or reflect the actual contract amount. Costs for completed projects must reflect actual construction.

4. **Adjacent Priority 3 Land and Water Resources**: Once you select the appropriate Problem Type(s) for the Priority 3 land and water reclamation problem(s) at the site, you will then be able to designate if a specific Priority 3 Problem Type feature is adjacent (geographically contiguous) to a specific health and safety problem. Therefore, you will need to enter Priority 1 and 2 Problem Type feature into eAMLIS before you enter the adjacent Priority 3 Problem Type features you intend to designate. Completing this process ensures that the associated costs are assigned to the higher priority for tracking and accomplishment reporting. NOTE: Adjacency only applies to AML Fee-Based programs.

5. **Multiple Program Areas and Alternate Funding Sources**: Multiple funding resources (Program Areas and AFS) are sometimes used to reclaim AML problems through interagency agreements, partnerships, landowner participation, or other cooperative efforts. If multiple sources provide funding for specific parts of a reclamation project, then costs should be divided accordingly. Use your best judgment to allocate costs by Program Area and/or AFS to each resource. These may be rough estimates until the reclamation is completed.

***Note**: When multiple programs are used to reclaim one AML problem, supporting Priority Documentation Forms, cost calculations, and other information should be uploaded to separate Problem Type entries to ensure that accomplishments are accurately recorded by funding source.*

Typical SMCRA and Non-SMCRA funding resources (Program Areas and AFSs) can include, but are not limited to:

a. Other federal agencies such as the Bureau of Land Management, National Park Service, or U.S. Forest Service programs;

b. Other State, Tribe, or local government organization's non-OSMRE funding;

c. Fishing or recreation organizations;

d. Watershed/environmental organizations;

e. In-kind services provided by private companies or various organizations;

f. Other OSMRE funding sources, i.e., Watershed Cooperative Agreement (WCA) or projects may be partially funded with 30% AMD Set-Aside (AMA) funds, AMLER, BIL, BIL Emergencies and STREAM Act funds. These should be shown as separate funding sources; and

g. Net proceeds from the sale of coal mined "incidental" to the AML project, i.e., if projects carried out under the February 12, 1999, "Enhancing AML Reclamation" rule generate money from the sale of coal mined incidental to the AML project, the net proceeds are applied to the project funding and are shown as a separate AFS.

6. **Reclamation Achieved Without AML Fund Moneys**: When AML Problem Type features have been abated in some way without the use of any AML Fund moneys, such as private reclamation, remining, natural causes, etc., the cost figure to be entered into the completed column should be zero since no AML funds were used.

7. **Annual Report Accomplishments**: It is important to enter project completion information into eAMLIS prior **to October 1**, even if minor cleanup and final inspection remains to be done. This is because all AML Program accomplishments for OSMRE's Annual Report to Congress are taken directly from eAMLIS on October 1st of each year. **The OSMRE Annual Report will include only information entered in eAMLIS prior to that date**. If data entry is delayed until the final contract inspection but the completion date is recorded as being a pre-October 1st date, then information will not appear in OSMRE's Annual Report.

8. **Unfunded, Funded, and Completed Cost – Timing and Resources**:

a. **Unfunded Portion**. Identify the Problem Type feature units and estimate the moneys needed for reclamation. It is a best practice to use a 5-year detailed cost estimate (with evidentiary annotation) of similar problem types to generate a reliable figure. If no other information is available, the Preparer may use the cost guidelines contained in Chapter 6 of these instructions. However, these guidelines were revised in 2019-20 and OSMRE believes that estimates based on recent local or regional information for similar projects are more reliable. **(OSMRE suggests using project costs within the most recent 5 years to generate reliable estimates.)**

b. **Funded Portion**. Report the units and costs of funded reclamation work when OSMRE approves an ATP or when a construction contract is signed that will result in reclamation of the Problem Type feature. Divide the reclamation contract cost between the Problem Types features to be

reclaimed. As the funded portion of the PA increases, the unfunded portion should usually decrease. Units and costs for some Program Areas are initially entered as funded (see PAD SUBMISSION GUIDE in Chapter 1).

c. **Completed Portion**. As required by 30 CFR §§ 886.21 and 885.20, you must report program accomplishments by updating the information in the completed columns for units and costs. **An AML reclamation project is considered completed for purposes of the AML Inventory when construction is complete. Completed costs should reflect final contract costs for construction only.**

d. Minor adjustments in the final contract amount that occur between completion of construction and termination of the contract do not have to be included in eAMLIS. In addition, unanticipated maintenance costs after project completion do not have to be included in eAMLIS unless there is major remedial work. **Long-term recurring costs, such as annual amounts needed for operation and maintenance of a treatment facility, should be recorded each year in eAMLIS as an added completed cost.** Units and costs for some Program Areas are initially entered as completed (see PAD SUBMISSION GUIDE in Chapter 1).

To record long-term recurring reclamation costs States and Tribes must update eAMLIS to account for ongoing long-term reclamation costs not included in the initial construction of a project. The timing of data entry into eAMLIS is determined according to the update requirements of the Program Area. If they are related to routine Priority 1, 2, or 3 coal projects, they should be entered at the time of the ATP. If the costs are in support of an AMD Set-Aside project, they should be entered at least annually along with a specific completion date. The costs should reflect direct expenditures associated with AML problem abatement (including chemicals, labor, repairs & maintenance including recapitalization, and sludge disposal). Consultant contracts and agency personnel expenditures should only be included if they are an essential component of the day-to-day abatement activity such as routine site labor. Design contracts and any agency management costs should not be entered. When entering long-term recurring costs into eAMLIS, the units of reclamation may change or remain the same. Each new recurring cost entry can and should include a revised flow rate (to accommodate changes to a stream's dynamic conditions – periods of drought or extremely rainy seasons.) Care should be taken to ensure that the cost is updated only if the current eAMLIS entry already accounts for the total units of expected benefit. Each recurring entry should include a succinct statement in the Comments section of the PAD to briefly describe the changes and details of the entry/refinement.

e. **Completion date in eAMLIS**. For OSMRE to provide Congress with more

accurate information on AML accomplishments a completion date must be entered for the reclamation of all problems completed. (Because this requirement began March 31, 2001, completion dates may not exist for entries prior to that date.)

E. Priority 4, 5, "F", And "H" Problem Type Unit/Cost Information

The table below contains the Problem Types for Priority 4, 5, "F", and "H" problems.

Priority	Code	Description	English Work Unit	Metric Work Unit
P4 COAL	CNF	Conservation Facilities	Count	Count
P4 COAL	O	Other	Count	Count
P4 COAL	RCF	Recreational Facilities	Count	Count
P4 COAL	ROD	Roads	Feet	Meters
P4 COAL	SGE	Pre-SMCRA Coal Research	Count	Count
P4 COAL	SMR	Surface Mining Reclamation	Acres	Hectares
P4 COAL	STR	Public Infra-Structure	Count	Count
P4 COAL	UTL	Public Utilities	Count	Count
P4 COAL	WQC	Water Quality Control	Count	Count
P5 COAL	CNF	Conservation Facilities	Count	Count
P5 COAL	HST	Historic Purpose	Count	Count
P5 COAL	OSB	Open Space Benefits	Count	Count
P5 COAL	UTL	Public Utilities	Count	Count
P5 COAL	RCT	Recreation Purpose	Count	Count
P5 COAL	ROD	Roads	Feet	Meters
PF-411 (f)	UTL	Public Utilities	Count	Count
PF-411 (f)	STR	Public Infra-Structure	Count	Count
PF-411 (f)	ROD	Roads	Feet	Meters
PF-411 (f)	RCF	Recreational Facilities	Count	Count
PF-411 (f)	CNF	Conservation Facilities	Count	Count
PF-411 (f)	O	Other	Count	Count
H-411 (h)	H1	411(h) Non-Mining Expenditures	Count	Count
H-411 (h)	H2	411(h) Non-Mining Expenditures	Count	Count

1. **Priority 4 and 5 Problems**: The 2006 amendments to SMCRA eliminated Priorities 4 and 5 for future projects, however, the eAMLIS will continue to contain historical information on Priority 4 and 5 projects completed prior to the amendments. At the time of this Directive, the States and Tribes had recorded accomplishments under Priority 4 Surface Mining Reclamation (SMR), Priority 5 Public Utilities (UTL), and Priority 5 Historical Purpose (HST).

2. **Priority "F" 411(f) Public Facility Infrastructure Expenditures**: As a result of the 2006 AML Reauthorization, Certified State and Tribe programs are required, when expending funds received under SMCRA Section 411(h)(1), to give priority to addressing the impacts of mineral development. In addition, Certified State and

Tribe programs could expend funds received under SMCRA Section 411(h)(2) to address the impacts of mineral development. Although AML Reauthorization established new funding sources, the work to be undertaken represents reclamation activities that were already available to them under SMCRA Section 411(f) since program inception. As of the date of issuance of this Directive, Certified States and Tribes have recorded accomplishments under Priority F Roads (ROD), Priority F Public Infra-Structure, Priority F Public Utilities (UTL), and Priority F Other (O).

To provide for complete and accurate AML Program expenditure reporting to Congress concerning reclamation activities that address the impacts of mineral development, Certified States and Tribes should record such work in eAMLIS when completed. There are no Priority Documentation forms associated with Priority F. To record the work, relevant information such as completion date, costs, and information on the scope of work, is entered into eAMLIS through the completion data module. To enter Priority F expenditures related to the impacts of mineral development, select the applicable Problem Type (PF Utilities, PF Roads, PF Public Infra-Structure, PF Recreational Facilities, PF Conservation Facilities, or PF Other) and then the applicable matching Program Area (Certified 411(h)(1) Non-Coal or Certified 411(h)(2) Non-Coal). Then proceed with entering the necessary PAD information and completed units, cost, and description of expenditures.

3. **Priority "H" Non-Mining Related Expenditures**: The 2006 amendments to SMCRA provided certified programs with the option of expending funds received under SMCRA Sections 411(h)(1) and 411(h)(2) for non-mining related activities, such as transportation, education, or energy development. eAMLIS will now record these non-mining efforts as completed costs so that the information is available for annual reporting to Congress. There are no Priority Documentation forms associated with this priority. Relevant information, such as completion date, costs, and information on the scope of work, is entered into eAMLIS through the completion data module. To enter non-mining related expenditures, select the applicable Problem Type (411(h)(1) Non-Mining Expenditure or 411(h)(1) Non-Mining Expenditure) and the applicable matching Program Area (Certified 411(h)(1) Non-Coal or Certified 411(h)(2) Non-Coal) and proceed with entering the necessary PAD information and completed units, cost, and description of expenditures.

   Non-Mining Related Expenditures are to be entered into eAMLIS upon completion. For some expenditures, completion may be the date the funding is provided for an activity, such as teacher's salaries. For others, it may be when construction of a particular structure is complete, such as a road or a building. ***Completed costs should reflect final costs for the stated activity and not include design or administrative costs related to program management.*** All AML Program accomplishments for OSMRE's Annual Reports to Congress are taken directly from eAMLIS on October 1st of each year. The annual reports will include only completed reclamation entered in eAMLIS prior to that date.

CHAPTER 3

COAL AND NON-COAL MINE RECLAMATION PROBLEM TYPES NON-COAL PUBLIC FACILITY PROBLEM TYPES NON-MINING EXPENDITURE PROBLEM TYPES

A. Priority 1 and 2: Health and Safety Problem Types

An AML Problem Type is a defined category of AML problems, such as a dangerous highwall (DH), vertical opening (VO), or subsidence (S).

A Problem Type feature is a specific on-the-ground feature that meets the definition of one of the AML Problem Types. Depending upon size and composition, PAs may contain multiple Problem Type features. As used throughout the following definitions, an AML Problem Type feature qualifies as an intense visitation area, if evidence is given of high visitation in or adjacent to the area.

Certified State and Tribes should continue to use the Priority 1, 2, and 3 Problem Types below when using 411(h)(1) and 411(h)(2) funds for reclamation of coal sites and for the reclamation of mine sites containing minerals other than coal. For non-mining related expenditures, see discussions at the end of this chapter.

Definitions are shown in alphabetical order with their respective eAMLIS Problem Type code.

1. **Clogged Stream (CS)**

   Any filling of a stream bed, usually in a narrow valley, with AML originated silt and debris carried downstream by surface runoff. This causes reduced carrying capacity of the stream resulting in a danger to improved property and human health and safety. **A CS is measured in miles of stream that will be dredged to abate the problem.**

   Those problems related to saturated ground caused by mine drainage water adversely impacting domestic water supply, human health condition, or the structural integrity of an occupied dwelling may not be assigned to the CS or clogged stream lands (CSL) Problem Type. Rather, problems associated with domestic water supply or human health condition can be considered as a Polluted Water: Human Consumption (PWHC); Problems associated with structural integrity can be considered as a Dangerous Slide (DS).

2. **Clogged Stream Lands (CSL)**

   Any AML-related surface mining spoil pile or bank, mine waste, or earth material disturbed by mining activity which could be eroded and cause a CS. For the CSL

to be a Priority 1 or Priority 2, demonstrate that the resulting CS will cause property damage and/or create a threat to human health and safety. **CSL are measured in acres of land affected by spoil, mine waste, and earth material that are directly contributing to the CS.** Those piles and banks which are identified and included in DH (dangerous highwall), DS (dangerous slide), and DI (dangerous impoundment) shall not be repeated for CSL problems.

3. **Dangerous Pile or Embankment (DPE)**

Any AML-related waste pile or bank located within close distance to a populated area, public road, or other area of intense visitation which poses a danger to public health and safety by its unstable steep slope or wind-blown dust and grit. The DPE Problem Type is to be used for recording non-coal related radiation problems associated with piles or embankments that would not otherwise be dangerous. **A DPE is measured in acres.**

4. **Dangerous Highwall (DH)**

Any AML-related unprotected highwall located in close proximity to a populated area, public road, or other area of intense visitation, which poses a threat to public health and safety. **Dangerous Highwalls are measured in linear feet.**

5. **Dangerous Impoundment (DI)**

Any AML-related large-volume water impoundment which poses a threat to human health and safety. Examples are mine waste embankments, sedimentation ponds, or underground mine water pools which could flood and cause catastrophic destruction to downstream property if the water retention structure were to fail. **A DI is recorded in counts.**

The description of a DI must give evidence of a weak, unstable, or otherwise inadequate impounding structure, such as lack of an emergency spillway or improper primary spillway.

6. **Dangerous Slide (DS)**

Any AML-related landslide that endangers human health and safety. Examples include mine waste piles or surface mine spoil which are unstable due to their own weight or lubricating effects of mine drainage water and threaten destruction of improved property located uphill or downhill from the landslide area. **A DS is measured in acres.**

7. **Flooding (FLD)**

Any AML-related flooding not caused by sedimentation of streams and not caused

by impounded water escaping a containment area. Problems with this keyword include soil saturation and flooding caused by rising mine pools, infiltration of groundwater polluted by mining to improved property, or flooding in areas that have subsided below the historic flood plain elevation. **A new problem type (added to eAMLIS in FY2019), Flooding is recorded in acres.**

*Use **Clogged Stream (CS)** for flooding caused by sedimentation of streams and use **Dangerous Impoundment (DI)** for flooding from impounded water escaping a containment area or mine pool.*

8. **Gases: Hazardous or Explosive (GHE)**

AML-related venting of hazardous or explosive gases. Those problems identified and included under other Problem Types shall not be repeated for a GHE problem. Use the GHE designation for gases from an underground mine fire when the proposed reclamation technique would involve sealing gas vents or restricting access to the gas plume. Use Underground Mine Fire (UMF) when reclamation would require mitigating the fire. The GHE Problem Type is to be used for recording non-coal related radiation problems where the radiation impact is not associated with any other Problem Type. **A GHE is recorded in counts.**

9. **Hazardous Equipment or Facilities (HEF)**

Any AML-related dilapidated hazardous equipment or facilities located within close proximity to populated areas, along public roads, or other areas of intense visitation. **A HEF is recorded in counts.**

10. **Hazardous Water Body (HWB)**

Any impounded water, regardless of depth or surface area that is considered an attractive nuisance and is located within close proximity to a populated area, public road, or other areas of intense visitation. Impounded water problems related to water pollution instead of physical hazards should be included under PWAI or PWHC. **A HWB is recorded in counts.**

The hazard must result from some AML-related feature(s) such as steep or unstable banks, hidden underwater ledges, or rocks or debris on the bottom. ***The fact that a pond is present is <u>not</u> sufficient evidence of a hazard.***

11. **Industrial or Residential Waste (IRW)**

Any AML-impacted area which has been used illegally for residential or industrial waste disposal that poses a danger to public health and safety from unsanitary conditions or from the toxic emissions from the burning refuse. **IRW is measured in acres.**

12. **Portal (P)**

Any AML-related surface entrance to a drift, tunnel, adit, or entry which is not sealed or barricaded and is posing a threat to public health and safety. **Portals are recorded in counts.**

13. **Polluted Water: Agricultural/Industrial (PWAI)**

Any surface or subsurface water used for agricultural or industrial purposes which does not meet standards (especially those for suspended solids, acid or alkaline conditions, heavy metals concentrations, or radioactivity) because of AML-related impact. Current test results should be supplied demonstrating the substandard conditions. The standards that are set for the water use should also be stated. **A PWAI is recorded in counts.**

14. **Polluted Water: Human Consumption (PWHC)**

Any surface or subsurface water used for human consumption or recreational waters used for swimming that does not meet standards (especially those for suspended solids, acid or alkaline conditions, heavy metals concentrations, or radioactivity) because of AML related impacts. Current test results demonstrating pollution should be recorded in eAMLIS. **A PWHC is recorded in counts.**

***Note**: A Priority 1 or 2 PWHC problem is different than a Priority B WS problem. Projects that specifically address health and safety problems should be recorded as a Priority 1 or 2 based upon the results of the PWHC Priority Documentation Form. If completion of the PWHC Priority Documentation Form does not yield a Priority 1 or 2 designation, the activities may be evaluated to determine if they qualify as a Priority B WS problem under SMCRA 403(b) (see WS Problem Type below).*

15. **Subsidence (S)**

Any surface expression of AML-related subsidence which damages property and poses danger to human safety and health. These may be tension cracks, troughs, shearing faults, or caving caused by AML-related underground mine voids. ***There must be evidence of subsidence activity and/or continued damage within the last five years.*** If subsidence results in an isolated pothole or vertical opening (VO), (see the VO Problem Type below). **A Subsidence is measured in acres.**

16. **Surface Burning (SB)**

Any AML-related continuous combustion of mine waste material resulting in smoke, haze, heat, or venting of hazardous gases located within close distance to a populated area, public road, or other public use area and posing a danger to public

health and safety. ***Burning must be currently occurring or be demonstrated to occur on a regular basis.*** Burning in a mine dump, even if beneath the surface of the material, is surface burning. **The Surface Burning problem type is measured in acres.**

17. **Underground Mine Fire (UMF)**

Any AML-related continuous smoke, haze, heat, or venting of hazardous gases from underground mine coal combustion posing a danger to public health and safety. **A UMF is measured in acres.**

18. **Vertical Opening (VO)**

Any AML-related vertical or steeply inclined shaft or opening which is not sealed or barricaded and poses a threat to the public health and safety. Also included are instances where subsidence results in an isolated pothole or vertical opening that has become a hazard. **A VO is recorded in counts.**

B. **Priority 3 (P3): Land and Water Problem Types**

1. **Bench, Solid Bench, Fill Bench (BE)**

A ledge that forms a single level operation along which mineral or waste materials are excavated. A solid bench is that portion of a bench formed on solid, unexcavated material. A fill bench is that portion of a bench usually consisting of unconsolidated spoil material extending outward from the solid bench. **Benches are measured in acres.**

2. **Gob (GO)**

The refuse or waste removed from a mine. This includes mine waste, rock, pyrites, slate, or other unmarketable materials which are separated during the cleaning process. Gobs are measured in acres.

3. **Highwall (H)**

The face of exposed overburden or the face or bank on the uphill side of a contour strip mine excavation. The vertical wall consisting of the deposit being mined and the overlying rock and soil strata of the mining site. A Highwall is measured in linear feet.

4. **Haul Road (HR)**

A road built and used for transporting mined material by truck. The road can be from a mine head or pit to a loading dock, tipple ramp, or preparation plant. A Haul

Road is measured in acres.

5. **Industrial or Residential Waste Dump (DP)**

An AML area used to dispose of any kind of industrial or residential waste not related to mining or processing. A DP is measured in acres.

6. **Equipment and Facilities (EF)**

Any equipment or buildings used to mine, process, or transport coal or mineral ores. Equipment and Facilities are recorded in counts.

7. **Mine Opening (MO)**

Any surface entrance or opening related to an underground mine. A Mine Opening is recorded in counts.

8. **Pit, Open Pit, Strip Pit (PI)**

The last uncovered cut adjacent to the highwall. In surface mining the working area may be known as a strip pit. Mine workings or excavations open to the surface are also termed pits. Pits are measured in acres.

9. **Slump (SP)**

Surface expressions resulting from the caving in of underground mine voids. Slumps are differentiated from subsidence because they are normally in undeveloped areas. The area has infrequent public visitation, recreational use, farming, livestock use, etc. In all likelihood slumps will not cause loss of life, serious injury or economic loss. A Slump is measured in acres.

10. **Slurry (SL)**

Fine particle material from coal or mineral processing collected in a pond. Solid must be separated from the water in order to have clear effluent for reuse or discharge. A Slurry is measured in acres.

11. **Spoil, Spoil Bank (SA)**

The overburden material removed in gaining access to a coal seam or mineral deposit. A Spoil Area is measured in acres.

12. **Water Problems (WA)**

Water leaving the AML PA and causing environmental impacts because of its pH,

sediments load, or other pollutants, or because of its effect on other lands due to poor drainage conditions (i.e., agricultural flooding). Water Problems are recorded in gallons per minute.

13. **Other (O)**

An AML area (or a non-AML area using AMLER funds) causing an environmental impact that does not fit one of the above definitions. This code is also utilized for AMLER funded projects that are non-environmental. **An Other problem type can vary in its nature; thus, it is important to record a count (if possible) and annotate the PA with comments and a narrative describing the site and project accomplishments. For AMLER funded projects a simple count of "1" will usually suffice for the unit data entry field in eAMLIS.**

C. **Section 403(b) Water Supplies Problems**

1. **Water Supplies – Section 403(b) (WS)**

Water supplies adversely affected by coal mining that are replaced through the repair, replacement, construction, or enhancement of facilities, including water distribution facilities and treatment plants.

Note*: Individual or defined groups of water supplies that qualify as health and safety problems because of PWHC should be recorded as a Priority 1 or 2 as discussed above under the PWHC Problem Type.*

D. **Non-Mining Related Expenditures**

1. **Certified Program Non-Mining Related Expenditures Section 411(h)(1) and 411(h)(2)**

Certified State and Tribes using 411(h) funding for non-mining related expenditures should choose the appropriate problem type below to record units and costs. **eAMLIS will require a short narrative describing the scope of the expenditures.** Non-mining expenditure could include payments to education departments for teacher salaries or school construction, general transportation improvements for equipment or roads, or any other expenditure authorized by the State Legislature or Tribal Council that does not address the impacts of coal or other minerals.

2. **Certified Program 411(h)(1) – Non-Mining Expenditures**

Select this Problem Type to record accomplishments when conducting non-mining related projects with funding provided under Section 411(h)(1) of SMCRA.

3. **Certified Program 411(h)(2) – Non-Mining Expenditures**

Select this Problem Type to record accomplishments when conducting non-mining related projects with funding provided under Section 411(h)(2) of SMCRA.

***Note**: When entering non-mining related expenditures, the Program Area should always match the Problem Type in terms of funding derivation. Therefore, Certified Program 411(h)(1) – Non-Mining Expenditures Problem Type should always be paired with the Certified 411(h)(1) Non-Coal Program Area. The Certified Program 411(h)(2) – Non-Mining Expenditures Problem Type should always be paired with the Certified 411(h)(2) Non-Coal Program Area.*

CHAPTER 4

DOCUMENTATION REQUIREMENTS FOR PRIORITY 1 & 2 PROBLEM TYPES and 403(b) WATER SUPPLY EXPENDITURES

A. Priority Documentation

This Directive and eAMLIS contain Priority Documentation Forms to assess and document the seriousness of health and safety problems and to demonstrate how a water supply problem qualifies for expenditures under Section 403(b) of SMCRA. Documentation evaluations must be completed for each Priority 1 or 2 Problem Type feature or Section 403(b) WS problem being entered into eAMLIS after December 12, 2012. Specific Problem Type features that were entered into eAMLIS before the date of this Directive will have supporting Priority Documentation Forms contained in hard-copy files unless or until they are uploaded to the system by the State/Tribe. The Priority Documentation Form is an essential component of AML problem and priority verification and is central to any OSMRE review and approval action. Completed Priority Documentation Forms must be uploaded to eAMLIS and maintained for recordkeeping purposes and for OSMRE review during updates and for oversight.

A single Priority Documentation Form may be used to assess and document multiple occurrences of the same Problem Type (Problem Type features) if the form is properly notated with detailed information and separate sections addressing each problem type in addition to summarized comments in the PAD Comment box (left hand panel in eAMLIS), and each occurrence is the same priority and reflects the conditions outlined on the completed form.

Example 1: PA containing both a Priority 1 and a Priority 2 dangerous highwall (DH), and a Priority 2 Dangerous Impoundment (DI).

In this example, **three** Priority Documentation Forms would have to be completed by program staff and uploaded to eAMLIS. The forms would be:

1. Priority 1- DH;

2. Priority 2-DH; and

3. Priority 2- DI.

Example 2: PA containing three Problem Type features of a Priority 2 dangerous highwall (DH), and a Priority 2 Dangerous Impoundment (DI).

In this example, program staff may be able to complete as few as two, or may need to complete as many as four, Priority Documentation forms. Two forms are possible if all

three Priority 2 DH occurrences can be accurately described **and notated with detailed information and separate sections addressing each problem type in addition to summarized comments in the PAD Comment box (left hand panel in eAMLIS)** together on one form. If not, then an additional form should be completed as necessary.
Priority Documentation information can be viewed and downloaded from eAMLIS or from OSMREs website if necessary. Priority Documentation Forms are formatted to be a useful field tool. Priority Documentation Forms reproduced in a State/Tribe electronic format are acceptable if they contain complete information.

PA NO.:	DATE:	PROBLEM TYPE: CS	PRIORITY:

CS Clogged Stream

Any filling of a streambed, usually in a narrow valley, with AML originated silt and debris carried downstream by surface runoff. This causes reduced carrying capacity of the stream resulting in a danger to improved property and human health and safety. A CS is measured in miles of stream that will be dredged to abate the problem. Those problems related to saturated ground caused by mine drainage water adversely impacting domestic water supply, human health condition, or the structural integrity of an occupied dwelling may not be assigned to the CS or Clogged Stream Lands (CSL) Problem Type. Rather, problems associated with domestic water supply or human health condition can be considered as a PWHC; problems associated with structural integrity can be considered as Dangerous Slide (DS).

<u>Problem Type Features</u> – if this form is being used to evaluate and record multiple occurrences of Clogged Streams within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any occupied structure, improved property, road, or public facility located within the floodwater path limit that would be subjected to destruction or floodwater damage in the event of local stream flooding?		
2.	Was there any previous record of flooding in the PA caused by a streambed being filled with AML-related sediments (thus losing storm water carrying capacity) where the cause of the flooding problem has not been corrected? *Note: if Clogged Stream lands are the cause of flooding, complete the appropriate documentation for that Problem Type.*		
3.	Is there a ***high probability of occurrence*** of flooding caused by an AML-related sediment-filled streambed?		
4.	Is there ***potential danger*** of flooding caused by an AML-related sediment-filled streambed?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with the adequate justification included in the narrative description.

Positive answers to Question 1 and Question 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with the adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: CS	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., e-AMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: CSL	PRIORITY:

CSL Clogged Stream Lands

Any AML-related surface mining spoil pile or bank, mine waste, or earth material disturbed by mining activity which could be eroded and cause a Clogged Stream (CS). For the CSL to be a Priority 1 or Priority 2, demonstrate that the resulting CS will cause property damage and/or create a threat to human health and safety. CSL are measured in acres of land affected by spoil, mine waste, and earth material that are directly contributing to the CS. Those piles and banks which are identified and included in DH (dangerous highwall), DS (dangerous slide), and DI (dangerous impoundment) shall not be repeated for CSL problems.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Clogged Stream Lands within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any occupied structure, improved property, road, or public facility located within the flood water path limit that would be subjected to destruction or flood water damage in the event of local stream flooding?		
2.	Was there any previous record of flooding in the PA caused by a stream bed being filled with AML-related sediments (thus losing storm water carrying capacity) where the cause of the flooding problem has not been corrected? *Note: If a Clogged Stream with reduced carrying capacity is the cause of flooding, complete the appropriate documentation for that Problem Type.*		
3.	Is there a ***high probability of occurrence*** of flooding caused by significant erosion carried downstream by surface water runoff from the unreclaimed AML area?		
4.	Is there ***potential danger*** of flooding caused by significant erosion carried downstream by surface water runoff from the unreclaimed AML area?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with the adequate justification included in the narrative description.

Positive answers to Question 1 and Question 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with the adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: CSL	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: DPE	PRIORITY:

DPE Dangerous Pile or Embankment

Any AML-related waste pile or bank located within close distance to a populated area, public road, or other area of intense visitation that poses a danger to public health and safety by its unstable steep slope or wind-blown dust and grit. The DPE Problem Type is to be used for recording non-coal related radiation problems associated with piles or embankments that would not otherwise be dangerous.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Dangerous Piles or Embankments within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any AML-related unstable steep refuse piles or banks (other than landslides) posing a danger to human life, safety, and health?		
2.	Is there any occupied structure, public use facility, improved public road, or public use park or recreational area located within 300 feet of the PA?		
3.	Is there any evidence of either frequent visitation or easy access road capable of carrying vehicles to the PA?		
4.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 4 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1 and Question 3 or 4 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: DPE	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

5. Narrative description of Priority 1 (Extreme Danger) problems:

6. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: DH	PRIORITY:

DH Dangerous Highwall

Any AML-related unprotected highwall located in close proximity to a populated area, public road, or other area of intense visitation, which poses a threat to public health and safety.

<u>Problem Type Features</u> – if this form is being used to evaluate and record multiple occurrences of Dangerous Highwalls within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
	PART A. Physical Condition of the Highwall		
1.	Is the height greater than 6 feet?		
2.	Slopes a. Danger to people i. Is there loose material on the face, and is the slope greater than 35 degrees? OR ii. Is the slope greater than 50 degrees? b. Is there danger to vehicles on road above the DH?		
	PART B. Dangers		
	If it meets the criteria necessary to be a DH in Part A, positive answers to Questions 3, 4, 7, 10 or 16 can qualify the problem as Priority 1. If it meets the criteria necessary to be a DH in Part A, positive answers to Questions 3 through 16 can qualify the problem as Priority 2. It is not necessary to answer all of the questions in the affirmative, and the questions may be given different weights of support in the narrative description. Multiple segments of a dangerous highwall should be consolidated on a single form. The physical characteristics and priority criteria for each segment should be noted in the narrative description.		
	Potential Dangers Below Highwall		
3.	Can materials falling from the highwall cause injury to residents or serious damage to occupied structures (and the surrounding yards) located in close proximity to the bottom of the highwall? *If so, the problem can qualify as a Priority 1 with an adequate justification included in the narrative description.*		
4.	Has an improved road(s) beneath the highwall been closed by rock falls and is it likely to be closed again because of continued deterioration of the highwall? *If so, it can qualify as a Priority 1 because it can prevent access by emergency vehicles.*		

PA NO.:	DATE:	PROBLEM TYPE: DH	PRIORITY:

5.	Can traffic on an improved road(s) be endangered by falling rocks? *The road(s) must be improved thoroughfares. Roads that provide access only to the bench or mine are not considered in the classification.*		
6.	Can improved property be damaged by falling material from the highwall? Could intensive use areas, where people gather beneath the highwall, be exposed to falling rocks? *This must involve a large number of people over a long period of time.*		
Roads Located Above the Highwall			
7.	Has a highwall(s) that is actively sloughed (i.e., deteriorating highwall) progressed to within 10 feet of a publicly maintained road? *If so, it can qualify as Priority 1.*		
8.	Is there a heavily traveled, maintained road(s), capable of speeds of at least 40 mph and used by the public within 40 feet of the highwall?		
9.	Is there an unimproved road(s) accessible to conventional road vehicles or off-road vehicles within 15 feet of the top of the highwall?		
Danger of Falling from Top of the Highwall			
10.	Is there an occupied structure(s), (including houses, apartments, schools, grocery stores, shopping malls, factories, and other retail stores where concentrations of people can be expected), located within 300 feet of the top of the highwall? *If so, that portion of the highwall can qualify as Priority 1.*		
11.	Is there an occupied structure(s), (see question 10 above), located within 500 feet of the top of the highwall? *If so, that portion of the highwall can qualify as Priority 2.*		
12.	Are there numerous inhabited dwellings that are outside of the 500 feet? *If it can be demonstrated that there is intense visitation to the top of the highwall, the highwall can qualify as Priority 2.*		

PA NO.:	DATE:	PROBLEM TYPE: DH	PRIORITY:

13.	Is there a park(s) and/or recreation use area(s) located within 500 feet of the top of the highwall with evidence of intensive public visitation to the top of the highwall?		
14.	Is there an area(s) of intense visitation on top of the highwall and is the road(s) to the area(s) accessible and in condition to allow access to the public? *Even if guardrails or natural barriers are present, this portion of the highwall can qualify as a Priority 2.*		
15.	*Although a hazardous water body is a different kind of problem from dangerous highwalls, the two overlap in the numerous cases of water-filled pits beneath a last-cut highwall.* Is the public congregating at the water body for recreation, (swimming, fishing, etc.), and is the public either exposed to danger by traversing the highwall to access the water or does the public use the highwall as a diving platform, parking area, or rest area?		
Other dangers			
16.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

17. Narrative evidence of Priority 1 (Extreme Danger):

PA NO.:	DATE:	PROBLEM TYPE: DH	PRIORITY:

18. Narrative evidence of Priority 2 (Health and Safety):

III. RECLAMATION COST DESCRIPTION: Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.)

PAD NO.:	DATE:	PROBLEM TYPE: DI	PRIORITY:

DI Dangerous Impoundment

Any AML-related large-volume water impoundment that poses a threat to human health and safety. Examples are mine waste embankments, sedimentation ponds, or underground mine water pools which could flood and cause catastrophic destruction to downstream property if the water retention structure were to fail.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Dangerous Impoundment within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any occupied structure, improved property, road, or public facility located within the floodwater path limit that would be subjected to destruction or floodwater damage in the event of a water retention structure failure?		
2.	Was there any previous record of flooding in the PA caused by a water retention structure failure?		
3.	Is there a ***high probability of occurrence*** of flooding caused by a deteriorated AML-related water retention structure currently impounding a large quantity body of water located upstream?		
4.	Is there ***potential danger*** of flooding caused by a deteriorated AML-related water retention structure currently impounding a large quantity body of water located upstream?		
5.	Is there any water impounding structure that has been breached, vacating the main body of impounded water, and where the water retention capacity of the structure is now being restored gradually by natural clogging and damming action?		
6.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 3 or 6 indicate the problem can qualify to meet Priority 1 criteria with the adequate justification included in the narrative description.

Positive answers to Question 1 and Question 4 or 5 or 6 indicate the problem can qualify to meet Priority 2 criteria with the adequate justification included in the narrative description.

PAD NO.:	DATE:	PROBLEM TYPE: DI	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

7. Narrative description of Priority 1 (Extreme Danger) problems:

8. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: DS	PRIORITY:

DS Dangerous Slide

Any AML-related landslide that endangers human health and safety. Examples include mine waste piles or surface mine spoil which are unstable due to their own weight or lubricating effects of mine drainage water and threaten destruction of improved property located uphill or downhill from the landslide area.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Dangerous Slides within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any AML-related land mass in the PA such as: a. Surface or sub-surface spoil, b. Coal mine waste pile or bank, or c. Surface mine bank affected by mine drainage water?		
2.	Is there any occupied structure, improved property, public road, or public use facility located at the toe or adjacent to an unstable AML-related land mass?		
3.	Has that land mass become unstable and is it presently moving, or is an imminent move obvious due to instability of its own weight or to the lubricating effects of mine drainage water that would endanger human health and safety or destruction of property located uphill or downhill from the land mass?		
4.	Is there any potential occurrence of a land mass move due to instability of its own weight or the lubricating effects of mine drainage water that would endanger human health and safety or destruction of property located uphill or downhill from the land mass?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Questions 1, 2, and 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Questions 1, 2, and 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: DS	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: FLD	PRIORITY:

FLD Flooding

Any AML-related flooding not caused by sedimentation of streams and not caused by impounded water escaping a containment area. Problems with this keyword include soil saturation and flooding caused by rising mine pools, infiltration of groundwater polluted by mining to improved property, or flooding in areas that have subsided below the historic flood plain elevation.

Use Clogged Stream (CS) for flooding caused by sedimentation of streams and use Dangerous Impoundment (DI) for flooding from impounded water escaping a containment area or mine pool.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Flooding within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any AML related flooding that may result in danger to human health and safety or damage to improved property?		
2.	Is there any **previous record** of flooding due to historic mining?		
3.	Is there a ***high probability of*** flooding due to historic mining?		
4.	Is there ***potential*** for flooding due to historic mining?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with the adequate justification included in the narrative description.

Positive answers to Question 1 and Question 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with the adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: FLD	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: GHE	PRIORITY:

GHE Gases: Hazardous or Explosive

AML-related venting of hazardous or explosive gases. Those problems identified and included under other Problem Types shall not be repeated for a GHE problem. Use the GHE designation for gases from an underground mine fire when the proposed reclamation technique would involve sealing gas vents or restricting access to the gas plume. Use Underground Mine Fire (UMF) when reclamation would require mitigating the fire. The GHE Problem Type is to be used for recording non-coal related radiation problems where the radiation impact is not associated with any other Problem Type.

<u>Problem Type Features</u> – if this form is being used to evaluate and record multiple occurrences of Gases: Hazardous or Explosive within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any current AML-related problems with the venting of hazardous or explosive gases, including radon, through mine openings, mine induced cracks, or boreholes? *Note: Analysis of ambient air samples is required for the evidence of hazardous gases.*		
2.	Are there any occupied structures, public facilities, or intense visitation areas located within the subject impact area, including adjoining areas where gas carried by wind propagates?		
3.	Has there been any ***occurrence*** of human death, injury or illness, or damage to improved property by AML-related hazardous or explosive gases?		
4.	Is there any ***potential*** of human death, injury or illness or damage to improved property by AML-related hazardous or explosive gases?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1, 2, and 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with the adequate justification included in the narrative description.

Positive answers to Question 1, 2, and 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with the adequate justification included in the narrative description.

PA NO:	DATE:	PROBLEM TYPE: GHE	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: HEF	PRIORITY:

HEF Hazardous Equipment or Facilities

Any AML-related dilapidated hazardous equipment or facilities located within close proximity to populated areas, along public roads, or other areas of intense visitation.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Hazardous Equipment and Facilities within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any dilapidated equipment or facilities posing a danger to human life, safety, and health?		
2.	Is there any occupied structure, public use facility, improved public road, or public use park or recreational area located within 300 feet of the PA?		
3.	Is there any evidence of either frequent visitation or easy access road capable of carrying vehicles to the PA?		
4.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 4 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1 and Question 3 or 4 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: HEF	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

5. Narrative description of Priority 1 (Extreme Danger) problems:

6. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: HWB	PRIORITY:

HWB Hazardous Water Body

Any impounded water, regardless of depth or surface area, that is considered an attractive nuisance and is located within close proximity to a populated area, public road, or other areas of intense visitation. Impounded water problems related to water pollution instead of physical safety hazards should be included under PWAI or PWHC.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Hazardous Water Bodies within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any AML-related hazardous water bodies posing a danger to human life, safety, and health?		
2.	Is there any occupied structure, public use facility, improved public road, or public use park or recreational area located within 300 feet of the PA?		
3.	Is there any evidence of either frequent visitation or easy access road capable of carrying vehicles to the PA?		
4.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 4 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1 and Question 3 or 4 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: HWB	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

5. Narrative description of Priority 1 (Extreme Danger) problems:

6. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: IRW	PRIORITY:

IRW Industrial or Residential Waste

Any AML-impacted area that has been used illegally for residential or industrial waste disposal that poses a danger to public health and safety from unsanitary conditions or from the toxic emissions from the burning refuse.

<u>Problem Type Features</u> – if this form is being used to evaluate and record multiple occurrences of Industrial/Residential Waste within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any current AML-related problems with unsanitary or toxic wastes, hazardous fumes, or open fires of residential or industrial waste disposed in an AML-affected area?		
2.	Are there any occupied structures, public facilities, intense visitation areas, or vegetation (subject to wildland fire caused by fires in the waste) located within the subject impact area? This includes adjoining areas, where unsanitary or toxic wastes or hazardous fumes are carried by wind or fires from residential or industrial waste can propagate.		
3.	Has there been any ***occurrence*** of human death, injury or illness; or fire damage to improved property or vegetation, from industrial or residual waste due to unsanitary conditions, toxic wastes, hazardous fumes, or open burning of the waste?		
4.	Is there any ***potential*** of human death, injury or illness; or fire damage to improved property or vegetation, from industrial or residual waste due to unsanitary conditions, toxic wastes, hazardous fumes, or open burning of the waste?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1, 2, and 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1, 2, and 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO:	DATE:	PROBLEM TYPE: IRW	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: P	PRIORITY:

P Portal

Any AML-related surface entrance to a drift, tunnel, adit, or entry that is not sealed or barricaded and is posing a threat to the public health and safety.

<u>Problem Type Features</u> – if this form is being used to evaluate and record multiple occurrences of Portals within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any AML-related, easily accessible, unguarded, open mine entries posing a danger to human life, safety, and health?		
2.	Is there any occupied structure, public use facility, improved public road, or public use park or recreational area located within 300 feet of the PA?		
3.	Is there any evidence of either frequent visitation or easy access road capable of carrying vehicles to the PA?		
4.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 4 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1 and Question 3 or 4 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

5. Narrative description of Priority 1 (Extreme Danger) problems:

PA NO.:	DATE:	PROBLEM TYPE: P	PRIORITY:

6. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION: Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: PWAI	PRIORITY:

PWAI Polluted Water: Agricultural/Industrial

Any surface or subsurface water used for agricultural or industrial purposes which does not meet standards (especially those for suspended solids, acid or alkaline conditions, heavy metals concentrations, or radioactivity) because of AML-related impact. Current test results should be supplied demonstrating the substandard conditions. The standards that are set for the water use should also be stated.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Polluted Water: Agricultural or Industrial within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any AML-related mine drainage water being used for agricultural irrigation, livestock feed, or industrial use?		
2.	Has the mine drainage water currently used for any of the above-mentioned purposes proven to be polluted? Pollution may be demonstrated by the existence of suspended soils, acidity, alkalinity, metals or radioactivity, or by the water's impact on aquatic life. *Note: It is recommended that results of laboratory analysis be attached as supporting evidence that water is polluted.*		
3.	Is there ***potential for any occurrence*** of death or illness of livestock or productivity loss in agriculture or industry caused by use of the water?		
4.	Has there been any ***occurrence*** of death or illness of livestock or a productivity loss in agriculture or industry caused by use of the water? *Note: It is recommended that evidence of direct relation of polluted water to an identified adverse impact be documented.*		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1, 2, 3 and 4 or 5 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1, 2, and 3 or 5 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE:	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION: Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: PWHC	PRIORITY:

PWHC Polluted Water: Human Consumption

Any surface or subsurface water used for human consumption or recreational waters used for swimming that does not meet standards (especially those for suspended solids, acid or alkaline conditions, heavy metals concentrations, or radioactivity) because of AML related impact. Current test results demonstrating pollution should be recorded in eAMLIS.

Note: A Priority 1 or 2 PWHC problem is different than a Priority B Water Supplies (WS) problem. Projects that specifically address health and safety problems should be recorded as a Priority 1 or 2 based upon the results of the PWHC Priority Documentation Form. If completion of the PWHC Priority Documentation Form does not yield a Priority 1 or 2 designation, the activities may be evaluated to determine if they qualify as a Priority B WS problem under SMCRA 403(b) (see WS Problem Type).

<u>Problem Type Features</u> – if this form is being used to evaluate and record multiple occurrences of Polluted Water: Human Consumption within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there any AML-related mine drainage water being used for domestic supply or recreational use?		
2.	Has the mine drainage water currently used for any of the above-mentioned purposes proven to be polluted? Pollution may be demonstrated by the existence of suspended soils, acidity, alkalinity, metals or radioactivity, or by the water's impact on aquatic life. *Note: It is recommended that results of laboratory analysis be attached as supporting evidence that water is polluted.*		
3.	Is there ***potential for any occurrence*** of death or illness of people caused by use of the water?		
4.	Has there been any ***occurrence*** of death or illness of people caused by use of the water? *Note: It is recommended that evidence of direct relation of polluted water to an identified adverse impact be documented.*		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

PA NO.:	DATE:	PROBLEM TYPE:	PRIORITY:

Note – *Problems that are not health and safety threats that are being addressed through the protection, repair, replacement, construction, or enhancement of facilities related to water supplies, including water distribution facilities and treatment plants, should be recorded under the special priority of Water Supplies, Section 403(b).*

Positive answers to Question 1, 2, 3 and 4 or 5 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1, 2, and 3 or 5 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: S	PRIORITY:

S Subsidence

Any surface expression of AML-related subsidence that damages property and poses danger to human safety and health. These may be tension cracks, troughs, shearing faults, or caving caused by AML-related underground mine voids. There must be evidence of subsidence activity and/or continued damage within the last five years. If subsidence results in an isolated pothole or vertical opening (VO), see the VO Problem Type.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Subsidence within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Is there a possible subsidence area directly beneath or immediately adjacent to inhabited structures, roadways, or public facilities?		
2.	Has it caused or is it anticipated that it could shortly cause loss of life, serious injury, or excessive economic loss?		
3.	Is there possible subsidence adjacent to or near structures, roadways, or public facilities?		
4.	Has actual subsidence in the area created potential for injury or appreciable economic loss?		
5.	Have the above problems occurred within the past 5 years?		
6.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 6 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Questions 3, 4, and 5 or 6 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: S	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

7. Narrative description of Priority 1 (Extreme Danger) problems:

8. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: SB	PRIORITY:

SB Surface Burning

Any AML-related continuous combustion of mine waste material resulting in smoke, haze, heat, or venting of hazardous gases located within close distance to a populated area, public road, or other public use area and posing a danger to public health and safety. Burning must be currently occurring or be demonstrated to occur on a regular basis. Burning in a mine dump, even if beneath the surface of the material, is surface burning.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Surface Burning within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any current AML-related problems with smoke, haze, heat, or open fire from burning coal waste materials?		
2.	Are there any occupied structures, public facilities, intense visitation areas, or vegetation located within the subject impact area, including adjoining areas, where gas and smoke carried by wind or fire propagates?		
3.	Has there been any ***occurrence*** of human death, injury or illness, or fire damage to improved property, or a vegetation fire ignited by an AML-related fire?		
4.	Is there any ***potential*** of human death, injury or illness, or of AML-related fire damage to improved property or an area of vegetation?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1, 2 and 3 or 5 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Questions 1, 2, and 4 or 5 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: SB	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: UMF	PRIORITY:

UMF Underground Mine Fire

Any AML-related continuous smoke, haze, heat, or venting of hazardous gases from underground mine coal combustion posing a danger to public health and safety.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Underground Mine Fires within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Has there been any occurrence of injury or death to a person, or damage to improved property, due to UMF problems?		
2.	Is the underground mine fire(s) within the limits of populated areas or at any occupied dwellings or structures?		
3.	Is the underground mine fire(s) ***migrating*** in the direction of an existing population center and/or occupied development(s)? Documentation of migration may include mine maps showing workings beneath or adjacent to an impact area, historical evidence of migration, physical evidence of fire or remote sensing data showing changes in the fire front.		
4.	Has the existence of hazardous gases been confirmed through the collection and laboratory analysis of ambient air samples taken from an occupied dwelling/structure?		
5.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

A positive answer to Question 1 or 5 indicates the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

A positive answer to Question 2, 3, 4, or 5 indicates the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

PA NO.:	DATE:	PROBLEM TYPE: UMF	PRIORITY:

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

6. Narrative description of Priority 1 (Extreme Danger) problems:

7. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION:

Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: VO	PRIORITY:

VO Vertical Opening

Any AML-related vertical or steeply-inclined shaft or opening which is not sealed or barricaded and poses a threat to the public health and safety. Also included are instances where subsidence results in an isolated pothole or vertical opening that has become a hazard.

Problem Type Features – if this form is being used to evaluate and record multiple occurrences of Vertical Openings within the PA, include sufficient information under Part II to identify and differentiate.

I.	HEALTH and SAFETY INFORMATION	Yes	No
1.	Are there any AML-related, unfilled, vertical or steeply inclined shafts or openings posing a danger to human life, safety and health?		
2.	Is there any occupied structure, public use facility, improved public road, or public use park or recreational area located within 300 feet of the PA?		
3.	Is there any evidence of either frequent visitation or easy access road capable of carrying vehicles to the PA?		
4.	Is there a condition, not described above, causing an immediate or potential danger? If so, describe the condition and danger in full detail in Section II.		

Positive answers to Question 1 and Question 2 or 4 indicate the problem can qualify to meet Priority 1 criteria with adequate justification included in the narrative description.

Positive answers to Question 1 and Question 3 or 4 indicate the problem can qualify to meet Priority 2 criteria with adequate justification included in the narrative description.

II. RECLAMATION PROBLEM DESCRIPTION (Evidence of Extreme Danger and Health and Safety Problems).

As stated in 30 U.S.C. 1233, SMCRA Section 403(a)(1)(A) defines Priority 1 as "the protection of public health, safety, and property from extreme danger of adverse effects of coal mining practices."

SMCRA Section 403(a)(2)(A) defines Priority 2 as "the protection of public health and safety from adverse effects of coal mining practices."

PA NO.:	DATE:	PROBLEM TYPE: VO	PRIORITY:

5. Narrative description of Priority 1 (Extreme Danger) problems:

6. Narrative description of Priority 2 (Health and Safety) problems:

III. RECLAMATION COST DESCRIPTION: Show the approach used to estimate cost and provide references or sources of information used (i.e., eAMLIS Cost Guidelines, previous reclamation projects, engineer's estimate, etc.).

PA NO.:	DATE:	PROBLEM TYPE: WS	PRIORITY: B

WS Water Supplies – Section 403(b)

Water supplies adversely affected by coal mining that are replaced through the repair, replacement, construction, or enhancement of facilities, including water distribution facilities and treatment plants.

Note: Individual or defined groups of water supplies that qualify as health and safety problems because of PWHC should be recorded as a Priority 1 or 2 as discussed under the PWHC Problem Type.

I.	WATER SUPPLY ADVERSE EFFECT INFORMATION	Yes	No
	PART A. SUPPLY IMPACTS		
1.	Are specific water supplies adversely affected by coal mining in terms of water quantity?		
2.	Are specific water supplies adversely affected by coal mining in terms of water quality?		
	PART B. COAL MINING RELATEDNESS		
3.	Are the coal mining related adverse effects on the subject water supplies entirely due to coal mining that occurred during one or both of the following periods of mining: 1. Coal mining that occurred prior to August 3, 1977? 2. Coal mining that occurred between August 4, 1977 and prior to the date that OSM approved your State's or Tribe's primacy regulatory program (also referred to as interim program period)?		
4.	Are the coal mining related adverse effects on the subject water supplies entirely due to coal mining that occurred between August 4, 1977 and November 5, 1990, and the surety of the subject mining operation became insolvent during that period leaving inadequate funds to address the adverse effects to water supplies?		
5.	Are the coal mining related adverse effects on the subject water supplies predominantly due to coal mining conducted during one of the periods specified in questions 3 and 4 above? If yes, explain further below.		

A positive answer to Question 1 and/or Question 2 along with a positive answer to Question 3, 4, or 5 qualifies the problem as an adverse effect to water supplies under Section 403(b) of SMCRA.

PA NO.:	DATE:	PROBLEM TYPE: WS	PRIORITY: B

II. RECLAMATION PROBLEM DESCRIPTION: Explain the scope of the problem and identify the water supplies that will be replaced. Include discussions of water quality and/or quantity impacts. Finally, if answered "Yes" to Question 5 above, include a discussion of how the determination was made.

III. RECLAMATION COST DESCRIPTION: Show the estimated cost and approach that will be used to protect, repair, replace, construct, or enhance facilities to replace water supplies adversely affected by coal mining practices. Identify any work that will be performed related to water distribution facilities and/or treatment plants. In addition, please provide references or sources of information used to estimate the costs (i.e., previous reclamation projects, engineer's estimate, etc.).

CHAPTER 5

GENERAL WELFARE SITES – HISTORY AND STATUS

On December 20, 2006, SMCRA was formally amended and the "General Welfare" term as a criterion for a Priority 1 or 2 problem was eliminated. Prior to that date, States, Tribes, and OSMRE could qualify certain types of AML problems based upon an adverse economic impact to a local community or proximity to a residential area. The elimination of the term General Welfare from SMCRA 403(a)(1) and (a)(2) changed how AML problems may qualify as health and safety problems and required OSMRE to modify this Directive and the eAMLIS.

The term General Welfare has been eliminated from various definitions and narrative descriptions and from the Priority Documentation Forms contained in Chapter 4. The net effect of the revisions is to eliminate the future addition of AML problems to the eAMLIS based upon General Welfare impacts.

Unfunded, funded, and completed General Welfare qualified AML problems contained in the Inventory have been reviewed by State and Tribe program managers and addressed as follows.

A. Unfunded General Welfare AML Problems

Each State and Tribe removed from the Inventory all unfunded AML Priority 1 and 2 Problem Type features that are solely included based upon the General Welfare provisions that were eliminated from SMCRA by the 2006 amendments.

If upon subsequent review, the State or Tribe determines that a previous General Welfare problem constitutes a Priority 1, 2, or 3 problem based upon criteria contained in this Directive, the problem may be re-entered into the eAMLIS along with the applicable cost and Priority documentation information.

OSMRE approval for the above revisions is only required where a Priority 1 or 2 General Welfare problem is being retained as a Priority 1 or 2 health and safety problem. OSMRE and the State/Tribe should coordinate to expeditiously complete any required reviews.

Example: In 1999, a State qualified 10 miles of mine drainage affected stream as a Priority 2 problem based upon the adverse economic effect to the general welfare of a community. A review of the problem determined that the stream miles may be retained on the Inventory as a Priority 3 environmental problem. The State would revise eAMLIS to reflect the Priority 3 designation and upload any revised cost estimates. No OSMRE review is required.

B. Funded General Welfare AML Problems

Priority 1 and 2 General Welfare problems that are funded as of December 12, 2012 – States and Tribes may record the completed costs of any funded General Welfare problem consistent with the Priority by which it was originally designated at the time of

funding.

C. Completed General Welfare AML Problems

Priority 1 and 2 General Welfare problems that are completed as of December 12, 2012 – States and Tribes are not required to revise the Priority of any completed AML General Welfare problems.

CHAPTER 6

ESTIMATING AND DOCUMENTING AML RECLAMATION COSTS

A. Estimating eAMLIS Reclamation Costs

States, Tribes, and OSMRE Field Offices have many years of experience with reclamation and the associated costs. It is recommended that this experience be used to estimate the unfunded inventory costs for the various Problem Type features. Costs should be based on knowledge of local conditions, recent construction costs, and/or industry cost publications and software applications (such as RS Means, Dodge Data and Analytics, RACER [Remedial Action Cost Engineering and Requirements], or AMDTreat).

Estimated costs must be only those costs that would result from a reasonable approach to abating the impacts of AML problems. Costs associated with reclamation techniques that would not be attempted by the State, Tribe, or OSMRE Field Offices should not be entered into eAMLIS. For example, if the only reasonable approach to abating impacts from an Underground Mine Fire (UMF) is to construct fencing that prohibits entry to areas of hazardous gas venting, then the cost associated with day-lighting the entire fire should not be entered into eAMLIS.

Completed costs should reflect:

1. final contract costs for construction, and

2. long-term recurring abatement costs, such as annual treatment costs for mine drainage facilities.

Unanticipated maintenance costs after project completion do not have to be included in eAMLIS unless there is major remedial work.

When AML Problem Type features have been abated without the use of AML Fund monies, such as private reclamation, remining, natural causes, etc., the cost amount entered into the PAD completed column should be zero. For example, use the Program Area Code "Remining" (RMA) to record a Priority 1, 2, or 3 AML Problem Type features that have been abated due to remining or use the Program Area Code "Other" (PVA) to record coal reclamation accomplishments that do not fall within one of the defined Program Areas. (See Chapter 2, Section B: "Program Areas & Alternate Funding Sources New or Revised" for more information.)

B. Cost Documentation

Each unfunded, funded, and completed cost entered into eAMLIS must be supported by specific information that shows the calculation approach and identifies data sources used

in the process. **A cost documentation review is part of OSMRE's responsibilities when approving new coal problems into eAMLIS. In addition, OSMRE has oversight responsibilities that will rely on cost information contained in eAMLIS.** An adequate cost calculation approach should include at least one of the following:

1. A summary of an engineer's estimate (include unit, estimated quantity, and estimated unit price);

2. Tabulations based on previous similar projects (projects cited must be completed within the last five years and include project name and eAMLIS PA number);

3. Industry construction cost publications (cite publication used and how you arrived at the estimate); or

4. Information contained in Part D (below).

Regardless of the approach used, there must be detail sufficient to show how the cost in eAMLIS was determined. **Cost justification narratives entered into eAMLIS must indicate the method used for developing the cost estimate and identifying the data sources or cost guidelines used.** Simple statements such as eAMLIS Cost Guidelines, engineer's estimate, construction cost publication, or previous AML project contract costs do not give enough information to justify costs entered into eAMLIS.

C. Uploading Cost Estimates to eAMLIS

Cost documentation that includes both (1) Cost Computations and (2) Cost Support Information must be uploaded to eAMLIS for all AML problems and modifications (including cost revisions).

Uploads may include detailed calculations and narratives contained within the following:

1. The Priority 1 and 2 Documentation forms (refer to Chapter 4: "Documentation Requirements for Priority 1 & 2 Problem Types and 403(b) Water Supply Expenditures" for more information);

2. The eAMLIS Cost Support Form, (see below);

3. A notated engineer's estimate showing how costs for each AML feature were determined; and

4. Any document that shows (in detail) the approach used to estimate the cost.

The following eAMLIS Cost Support Form may be used to facilitate cost documentation for all problem types. The form may also be useful for Problem Types that do not have Priority Documentation Forms in Chapter 4 including:

1. Priority 3 AML features;

2. Priority “F” 411(f) Public Facility Infrastructure Expenditures; and
3. Priority “H” Non-Mining Related Expenditures.

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT
eAMLIS COST SUPPORT FORM

PROBLEM AREA NUMBER:	DATE:	PROBLEM TYPE:	PRIORITY:

COST COMPUTATION: Show the estimated cost and supporting computations. (*Cite method used to formulate estimate. Show the breakdown of costs or attach supporting documents*.)

COST SUPPORT INFORMATION: Select one:

☐eAMLIS Cost Guidelines

☐Reclamation Projects (within the past five years)

☐Engineer's Estimate

☐Industry Standards (cite publication)

☐Other (specify in comments section below)

COMMENTS: (document your cost support form here):

D. **Cost Guidelines**

The following guidance is provided as a supplement to aid the Preparer in developing new or modified cost estimates for different Problem Types. The basis for developing Inventory cost estimates must be documented and uploaded into eAMLIS.

1. **Grading/Revegetation**:

Costs for revegetation of spoils, bench, pits (when filling is not required), gob material, and haul roads will vary. The degree of work needed to complete the revegetation work determines the costs. In most cases, unless you are dealing with a small area (<1 acre), estimates are determined on a per acre basis.

Types of grading work include the following (and in most cases, the cost per acre will decrease as the number of acres increases):

a. Spot plantings and a few scattered silt control structures, no grading:
Calculate: cost per acre.

b. Conditioning and ground cover, no grading:
<10 acres: Calculate cost per acre.
>10 acres: Calculate cost per acre.

c. Smoothing with rubber-tired equipment (some grading), conditioning, ground cover:
<10 acres: Calculate cost per acre.
>10 acres: Calculate cost per acre.

d. Significant grading, conditioning, ground cover:
<10 acres: Calculate cost per acre.
>10 acres: Calculate cost per acre.

e. Toxic soil: Double the cost per acre for the affected acreage.

f. Burning acres (surface burning): Double the cost per acre for the affected acreage.

For extremely large piles of mine wastes (generally over 40 feet high or with an average depth of 15 feet or more or containing more than 25,000 cubic yards of material/acre) where removal of material is likely to be required in addition to grading, it may be appropriate to calculate cost according to the volume of material involved rather than by the acreage disturbed.

2. **Slurry Areas**:

Costs for regrading slurry areas are usually done by the acre. (*In most cases, the cost per acre will decrease as the number of acres increases*.)

<10 acres: Calculate cost per acre.
>10 acres: Calculate cost per acre.

3. **Highwall Reclamation:**

Earthmoving costs associated with backfilling highwalls, and mine pits are based on the volume of material to move; therefore reclamation cost estimates should be based on a presumed fill volume. Assuming that a triangular fill section with a constant, uniform slope will be placed against a highwall face, assumed to be vertical, then the cross-sectional area should be multiplied by the appropriate highwall length to estimate the required fill volume. A cost rate factor (dollars per cubic yard) is then multiplied by the calculated fill volume to arrive at the backfilling and grading cost.

The fill height can vary depending upon the availability of spoils. If enough fill material exists near the highwall to completely cover the highwall face, the effective fill height will equal the actual highwall height. If no spoils are available to cover the highwall face, it may be necessary to cut or blast the highwall face to eliminate the highwall. Material at the top of the highwall could be moved to the base of the highwall for fill material. In the most extreme situation half of the highwall height could be removed, making the effective fill height ½ (one-half) the original highwall height. All other spoil conditions could result in an effective fill height between ½ (one-half) the highwall height and the original total highwall height.

Next, the geometry of the fill slope is considered. Reclaimed slope grades will vary depending upon land use, hydrology, and the prevailing terrain. For cost estimation purposes a single slope grade is usable for all reclaimed slopes. A uniform slope of 2.7:1 (horizontal: vertical) is used because it falls well within the range that is used in practice, and the grade simplifies the reclamation cost calculations.

Once the height and slope grade of the triangular fill section is determined, the base distance is set, and the required fill volume can be calculated by multiplying the cross-sectional fill area by the highwall length. Once the volume is known, a

cost rate can be applied. A volumetric cost rate (dollars per cubic yard) can be used to estimate the cost of rough backfilling and grading a highwall.

After rough backfilling and grading is completed, final grading, top soiling, and revegetation may be necessary. In addition, other reclamation costs, such as equipment mobilization and sedimentation control, could be incurred and should be indicated on the documentation of the cost estimate.

Required Fill Volume Equation:

Required Fill Volume (V) = 2(x) x triangular base (b) x highwall height (h) x highwall length (L).

Assuming a 2.7:1 reclaimed slope grade and a vertical highwall, the fill volume equation is:

$V = ½ bhL$

$V = ½ (2.7h \times h \times L)$, where the triangular base (b) = 2.7h

If expressed in metric units (meters), the above formula results in cubic meters. There are 1.308 cubic yards in a cubic meter. However, if the highwall dimensions are reported in feet, which is normally the case, it is necessary to divide the calculated volume by 27 to arrive at the required fill volume in cubic yards. In that case, use the following equation for the required volume of fill:

$V = 2.7\ h^2\ L$ divided by 54

$V = 0.05\ h^2\ L\ (yd^3)$

4. **Slides**:

Costs for reclaiming landslides can vary depending on the complexity and size of the area impacted. For slides that require only correction of drainage patterns or some grading, estimate costs on the amount of acreage to be disturbed and the type of work needed in order to stabilize the slide.

5. **Water Problems**: (costs vary considerably with volume, water quality and treatment method chosen).

   a. *Water treatment:* Water treatment costs may not exceed the period of remaining collections. AMD Treat, a member of OSMRE's Technical Innovation and Professional Services (TIPS) suite of software, is a computer application for estimating abatement costs for pollutional mine drainage, commonly referred to as Acid Mine Drainage or AMD (also Acid

Rock Drainage or ARD). See the section on Polluted Mine Drainage below for more information about the software and how to obtain it.

(1) Treatment of small flows < 15 gpm
(Such as limestone drains, air seals, or aeration weirs):

(2) Treatment of flows from about 15 -100 gpm: Cost can be as high as $100,000.

(3) Treatment of flows from about 100-500 gpm: Cost can be as high as $500,000.

(4) Treatment of flows > 500 gpm: Costs can exceed $500,000.

b. *Stream cleaning*: Costs will depend on size of stream and the complexities associated with the work.

c. *Treating/draining ponds*: Costs depend on the amount of water to be drained or treated.

d. *Backfilling pits, draining and backfilling ponds or pits*: Cost per acre per 10' depth.

6. **Structures**:

Use discretion when estimating costs for structures. Base estimates on the size, condition, accessibility, and type of construction material (steel, reinforced concrete, wood, sheet metal, etc.) of the structure to be dismantled.

7. **Portals and Vertical Openings**:

Costs for sealing portals and shafts will vary depending on the type of reclamation selected. Normally the more openings that are sealed under one contract the less it will cost per opening.

8. **Underground Mine Fires**:

Reclamation costs should be based on the cubic yardage (CY) of overburden overlying the mine fire. Estimates of surface extent and depth for UMF cost determinations should be based on Geotechnical data and/or observable surface features. Surface features include ground cracks and ground openings (that may or may not be venting visual steam, combustion products, and heat emissions), dead and dying vegetation, lack of forest/organic litter, burned trees, and elevated ground temperatures. **eAMLIS shall contain, in narrative form, the evidence**

used to calculate volume estimates. The estimator should determine the following mine fire parameters:

a. Surface area of the estimated burn zone;

b. Average depth of overburden to the bottom of the coal seam;

c. Volume of the burn area in cubic yards. [Multiply surface area (ft^2) by the average overburden depth in feet for total cubic feet. Divide by 27 for total cubic yards];

d. Geotechnical drilling may be useful in determining volume estimates;

e. Narrative and objective evidence for establishing burn zone and surface area should be provided on the supplemental form; and

f. Reclamation cost: Multiply total cubic yards by your regional/state unit value to determine cost per cubic yard.

9. **Large Subsidence Prone Areas Impacting Property:**

a. **Establishing Extent**:

If there is evidence of subsidence activity and/or continued damage within the last five years, use the procedure below for defining the extent of a subsidence prone area. This procedure uses the type of land use and depth of mining to project the number of acres which could be affected per subsidence event. For example, in a highly developed area with a mining depth of greater than 100 feet, you would claim 5 acres of affected land. If there were 3 separate events you would multiply 5 X 3 for a total of 15 acres to be reclaimed. The following table gives some suggested acres per event for different scenarios.

Guidelines For Setting Extent of Impact Area		
Type of Land Use	Mining Depth	Acres/Event
A. Highly Developed	> 100	5
	50 – 100	4
	< 50	3
B. Developed (suburban and industrial)	≥ 50	2
	< 50	1
C. Rural (limited use and individual settings)	≥ 50	1
	< 50	½

b. **Subsidence Reclamation Cost**:

Costs for subsidence abatement over a large area are based on regional/state values developed by historical data or through various construction cost guides described previously in this chapter. The total number of acres determined from the table above is multiplied by this value to get an estimated reclamation cost. In the previous example you would multiply 5 acres per event times 3 events times your regional/state per acre value. These estimated costs do not include administrative or design development costs.

c. **Polluted Mine Drainage***:*

Reclamation costs of large flows of polluted mine drainage may be affected by several variables. These include:

(1) Seasonal flow rate variability;

(2) Variability of the pH and iron content (or other pollutants) of the drainage;

(3) The number of drainage sources;

(4) The impact on any receiving streams; or

(5) The interrelationships between drainage in the PA and that from other PAs.

Water treatment methods may be very site-specific with such options as air seals, aeration weirs, holding ponds, limestone drains, recharge control, and treatment plants being considered. For purposes of formulating cost estimates, it is assumed that treatment plants could be required for the larger flows although it is recognized that this means of addressing a particular problem might not prove to be the most appropriate after required engineering studies have been done. It is also recognized that use of a water treatment facility does not provide true reclamation but only abatement of the problem for as long as plant maintenance is continued. This is an example of a problem not being addressed in full during the course of the AML program. In order to provide the required cost estimates, some assumptions should be made. The flow rate is the average rate over a year's time.

a. A treatment facility will be needed;

b. Lime with sludge removal method will be used; or

c. Treatment costs for moderate acidity will apply in all cases.

As discussed above under Water Problems, water treatment costs may not exceed the period of remaining collections with the 2006 SMCRA Amendments, which extended AML fee collections through 2021.

Water problems involving wells and septic systems require more individual consideration. Providing new cased wells or installing new water lines may be the most cost-effective method in the long run when addressing polluted domestic water supplies.

***Note**: AMD Treat, a member of OSMRE's Technical Innovation and Professional Services (TIPS) suite of software, is a computer application for estimating abatement costs for pollution mine drainage, commonly referred to as Acid Mine Drainage or AMD (also Acid Rock Drainage or ARD). AMD Treat offers users a method to predict and model water treatment costs for mine drainage problems. It also allows for the determination of capital cost associated with treatment of polluted mine drainage. AMD Treat provides many different treatment options both for passive and active treatment systems. The acid mine drainage abatement cost model provides over 500 user modifiable variables in modeling costs for treatment facility construction, excavation, revegetation, piping, road construction, land acquisition, system maintenance, labor, water sampling, design, surveying, pumping, sludge removal, chemical consumption, clearing and grubbing, mechanical aeration, and ditching. AMD Treat also contains several financial and scientific tools to help select and plan treatment systems. These tools*

include a long-term financial forecasting module, an acidity calculator, a sulfate reduction calculator, a Langelier saturation index calculator, a mass balance calculator, an abiotic homogeneous Fe2+ oxidation calculator, a biotic homogeneous Fe2+ oxidation calculator, an oxidation tool, and a metric conversion tool (Metri-Treat).

AMDTreat was developed cooperatively by the Pennsylvania Department of Environmental Protection, the West Virginia Department of Environmental Protection, U.S. Geological Survey, and OSMRE. The software is available to the public as a free download at: https://www.osmre.gov/programs/reclaiming-abandoned-mine-lands/amdtreat

E. **Examples of Acceptable Cost Estimation Types:**

1. **Previous Reclamation Projects:**

If only three or less projects exist within the past 5 years this method is ***not*** recommended. Follow the guidelines below:

a. Use project costs no more than 5 years old; and

b. List the names and Problem Area Description numbers for all sites being used to calculate the average cost.

Example: Dangerous Highwall: 1,000 LF (linear feet).

Review of eAMLIS projects within your state shows an average cost over the last 5 years of $100/LF reclaimed. Therefore, the estimated reclamation cost is:

1,000 LF X $100 = $100,000.

This is the estimate to enter into eAMLIS. Ideally, one should have at least 4-5 sites to get a more accurate picture of the average costs for a given Problem Type. **When using this method, list the eAMLIS ID number, completion date, and completed cost for each comparable problem type used for the estimate.**

2. **Engineer Estimate:**

Use a pre-developed data sheet (spreadsheet) with various costs used by local or state designers to estimate costs when developing work specifications. For example:

Example: Vertical Opening: Shaft

a. Rock Backfill: 200 Tons X $20/ton;

b. Soil cover: 50 CY X $4/CY;

c. Foam: 5 CY X $300/CY = $1,500.

To figure other costs such as mobilization/demobilization, site preparation, etc., add 10-20 percent to the estimated cost for each added item.

The idea is to get a good estimate based on information obtained during the investigation of the site. By using pre-developed costs for individual reclamation items, a more accurate estimate can be generated. The estimate may need to be adjusted once the work is engineered and designed; however, this method will give the reviewer sufficient detail to determine how the eAMLIS estimate was calculated.

3. **Industry Publications:**

a. Similar to an engineer estimate; and

b. Use types of publications (R.S. Means, Dodge Data, etc.).

This method helps to develop costs for reclamation items that are based on the industry's average cost for types of work performed. This method can be an accurate method to use since these sources consider all parameters, including costs associated with wages, compensation, overhead and profit, etc. There is also a regional inflation factor that sometimes must be incorporated when using these sources, which is usually stated within the publication or online source. **When using this method, list the publication used and the items being used to calculate the reclamation cost.** This can also be used in conjunction with the engineer estimate when a pre-determined cost has not been developed for a particular reclamation item.

There are other ways to determine costs for eAMLIS features. The methods listed above are just a few examples. **Whatever method you plan to use to calculate costs should be detailed enough for the OSMRE reviewer to clearly understand how the cost estimate entered into eAMLIS was determined.**

CHAPTER 7

DIRECTIONS FOR CREATING PLANNING UNITS AND PROBLEM AREAS

A. Creating Planning Units (PU)

Each State has been divided into Water Cataloging Units (WCU) by the Water Resources Council. These appear on the State's Hydrologic Unit Map, which was prepared by the U.S. Department of the Interior, U.S. Geological Survey, in cooperation with the U.S. Water Resources Council.

In preparation for conducting the original AML Inventory, each State/Tribe or their contractor prepared 1:250,000 map overlays that identified WCUs and delineated PUs within the WCU. The entire WCU may be 1 PU or subdivided into several PUs. PA are located within the PU.

When a new PA is identified, its PU and WCU location can be obtained from one of the above sources. **Since PUs were designated for all known areas where coal reserves occurred, it is likely that new coal PAs will be located in one of these existing PUs**. If not, it should be relatively close to one. The simplest way to take care of this situation is to adjust the PU boundary to include this new PA. However, non-coal features may not be in or near a designated PU and a new PU will need to be made. **Be sure the adjustment to the boundary of an existing PU or the boundary of a new PU do not cross a WCU line**.

When a new PU needs to be created, use the following method:

1. **First, note how other PUs in the State/Tribe were determined and try to use the same methodology**. In general, PUs east of the Mississippi River corresponds to watersheds. PUs in the West were defined in a number of ways, including quadrangles, grazing districts (Navajo), townships, counties, or entire WCUs.

2. **Use the WCU as 1 PU or subdivide the WCU into several PUs**.

3. **Give the PU a unique name and number**.

4. **Add the new PU to the map**.

B. Creating Problem Areas (PA)

A PA is a subdivision of a PU, containing one or more AML-related problems or one or more non-coal mining related Problem Types together with impacted land and water. **The PA should be large enough to contain significant problems but small enough that a**

single project could reasonably be expected to address all of the problems. For PAs recording non-mining related accomplishments by Certified States and Tribes using Section 411(h)(1) or 411(h)(2) funding, see discussion below.

A PA is a uniquely defined geographic region. AML reclamation within a PA can be accomplished by more than one Program Area.

Since PAs consist of AML impacted areas, the PAs in a PU will seldom cover all of the area in a PU. If a new Problem Type feature is identified which is not in an existing PA but is relatively close to one, the Preparer may adjust the boundary of the existing PA to include the new Problem Type feature. However, if a new PA needs to be created, consider the following criteria in determining its boundaries:

1. **The PA should be within a PU boundary**.

2. **PAs should be confined to a single county**. Separate PAs should be created whenever the AML problem spans county lines.

3. **PAs should be large enough to contain significant impacts**. The area can contain any combination of health and safety, and restoration problems. The extent of the problem (subsidence, for example) should form the limits of the PA.

4. **The new PA will have a unique name and number and an associated Program Area Code**.

C. **Certified Program Non-Mining Related Accomplishments**

Certified States and Tribes may record in eAMLIS non-mining related accomplishments with funding provided under SMCRA Section 411(h)(1) or 411(h)(2). Recording such information may require the establishment of a PA when the accomplishments do not fall within the geographic area of an established or a reasonably revised PA, or when the activity is State-wide or very general in application.

When establishing new PAs for non-mining related accomplishments, certified programs may choose to set-aside or designate specific PA numerical ranges for such projects. eAMLIS will allow for a narrative description of the accomplishments and recordation of costs. PA names may be developed that provide an indication of the type of non-mining related activities conducted.

Further data entry should reflect the county, specific location, Congressional District, and other information that accurately describes the type and location of the non-mining related expenditure. Certified programs should establish a consistent approach for recordation of non-mining related accomplishments that are not tied to a specific location. A certified state may wish to designate an area encompassing the State Capitol, county seat, or other administrative location as a PA to record non-mining expenditures that apply across the region.

CHAPTER 8

PROBLEM AREA MAPPING

To generally locate each PA, eAMLIS will require a set of coordinates. However, to fully document the location of AML individual problems and to support the "paper-less" eAMLIS platform, maps shall be uploaded to eAMLIS with notations to show the location of hazards clustered within a PA.

A map must be prepared for each PA showing:

1. **Quadrangle name,**
2. **PA boundaries,**
3. **PA number, and**
4. **Approximate location of each AML problem.**

Maps must be updated as needed to add new Problem Type features to the Inventory. Reclaimed hazards are not to be removed from the PA map in order to maintain the historical record of AML problem location. You may develop a symbol to denote reclaimed features.

Electronic maps uploaded to eAMLIS may include scanned paper maps or maps generated by GIS software. **The map format will be, at a minimum, an electronic copy of an 8 x 11-inch section of a 7.5 minute quadrangle map.** You may supplement the 7.5 minute map with a sketch map to show the location of hazards clustered in a small area. Since the map is a part of the PAD, the map and any supplemental sketch maps will be uploaded to eAMLIS.

Map files uploaded to eAMLIS should be of a platform that allows review by commonly available software, such as Microsoft Word, Adobe pdf, JPEG files, or other files that use a commonly available viewer. File size shall be no larger than that needed to provide sufficient detail to locate AML problems and complete site reviews. The goal is to allow access to the maps without purchasing special software. **Electronic maps must meet the minimum requirements as described above and must be maintained as part of the permanent record**.

CHAPTER 9

EMERGENCY PROGRAM INVENTORY UPDATE RESPONSIBILITIES

A. **Background**

In the past, AML emergency project accomplishments have been placed in the Inventory only by States with emergency program responsibilities. To establish program-wide accomplishments, OSMRE had to gather information from Federal Emergency Program officials and then try to report them in a manner consistent with all other types of AML projects. Completed emergency problems (using Program codes SEA, EBI, or EMA) MUST include an Abate Date entered into eAMLIS shortly after they are remedied.

B. **Requirements**

1. **State emergency projects**:

   a. **All State emergency projects must be placed in the AML Inventory soon after construction has been completed**.

   b. **Program officials must enter emergency projects in already established or new PAs**.

   c. **If placement into a site-specific PA is not possible, then the emergency must be entered into specially created county emergency PAD**. These specially created PADs will contain information for all emergencies in a county not included in another PAD. Include the latitude and longitude in the Problem Type Comments section for each individual emergency project in the county.

   d. **Those emergency projects affecting a high priority project funded under another program require a PAD submission at time of completion to address changes in AML Problem Types**.

   e. **When preparing a PAD to report completion of reclamation, features and costs must be reported in eAMLIS by uploading the appropriate documentation**.

2. **Federal emergency projects**:

   For Federal emergency projects use program code EMA and enter the P1 problem type directly into the "Completed" costs and units in eAMLIS.

CHAPTER 10

RURAL ABANDONED MINE PROGRAM (RAMP) INVENTORY UPDATE RESPONSIBILITIES

A. Background

In the past, RAMP AML Inventory information had been placed in the Inventory by OSM as a result of PADs and PAD updates submitted through the States from the USDA, NRCS. This system resulted in several problems. Occasionally, features contained in the Inventory of AML problems submitted by RAMP were also contained under the State AML program. In some instances, this caused a double counting of potential AML impacts. In addition, problems reclaimed by RAMP could still appear as unreclaimed impacts under the State Program.

B. Unfunded RAMP Problems

Unfunded RAMP problems will remain in the Inventory even though there may be some double counting. The State and RAMP programs are encouraged to work together to develop a consistent Inventory of unfunded problems.

C. Requirements

The 2006 amendments to SMCRA eliminated Title IV as a source of funding for RAMP projects. However, the RAMP is still provided for under SMCRA Section 406 if General Treasury funds are made available by Congress. Consequently, historical RAMP information will continue to be maintained. In addition, the following requirements and responsibilities apply to State and OSM officials when working with RAMP officials:

1. All unfunded RAMP projects must be put in the Inventory upon request by the Secretary of Agriculture. The State and RAMP programs are encouraged to coordinate to minimize disruption to ongoing program operations.

2. Upon request by the Secretary of Agriculture, all RAMP funded projects must be entered in the Inventory as "funded" when a construction contract is signed and moved to completed at the time of completion.

3. Prior to the development of information for inclusion into the AML Inventory, RAMP officials should coordinate with the appropriate State AML program officials to ensure that PAs are accurately defined and designated. In the cases where RAMP is proposing work that would alter an existing PA, RAMP officials should coordinate with the State to ensure that the data in the Inventory are accurate upon completion of the process. For example, RAMP might reclaim a problem shown as unfunded in the State eAMLIS information.

4. When RAMP proposes work that results in a new PA, RAMP officials should

coordinate with the State AML program officials to obtain a new PA number (State assigns number).

5. Once the PA information is developed by NRCS, RAMP officials should coordinate with the State AML program officials to have the data entered into the AML Inventory.

The following requirements and responsibilities apply to State AML program officials:

a. State AML program officials control the assigning of PA numbers and must be responsive to RAMP to ensure that all RAMP problems are placed into the Inventory and updated upon request by the Secretary of Agriculture.

b. State AML program officials must coordinate with the appropriate RAMP official to ensure that PAs are accurately defined and designated. In the cases where RAMP is proposing work that would alter an existing PA, they must coordinate with the RAMP to ensure that the data in the Inventory are accurate upon completion of the process. The State and RAMP programs are encouraged to work together to develop a consistent Inventory of RAMP problems.

c. When RAMP coordinates with the State to obtain a new PA number, State AML program officials must ensure that the new PA is properly numbered, does not overlap any existing PA, and the new PAD does not contain information that conflicts with existing Inventory data.

d. Once RAMP develops PA information, the State must coordinate with RAMP to have the data entered into the AML Inventory.

CHAPTER 11

ABANDONED MINE LAND ECONOMIC REVITILIZATION (AMLER) PROGRAM

A. Background

Congress has appropriated funding for the Abandoned Mine Land Economic Revitalization (AMLER) Program (previously known as the AML Pilot Program) on an annual basis since Fiscal Year (FY) 2016. The intent of the program is to explore and implement strategies that return legacy coal mining sites to productive uses through economic and community development. The AMLER Program supports local investment opportunities that provide for sustainable long-term rehabilitation of coalfield economies. The Office of Surface Mining Reclamation and Enforcement (OSMRE) administers the AMLER program and provides eligible states and Tribes with AMLER grants and guidance on project eligibility criteria and reporting requirements.

B. AMLER Guidance on AMLER Project Eligibility

Please visit the OSMRE AMLER website to access the most recent AMLER Project Eligibility Guidance Document.

This document provides eligibility requirements for AMLER projects. It also includes information regarding real property and reporting requirements that apply to AMLER projects from all fiscal years.

C. Eligible Projects

Sites eligible under the AMLER Program:

1. Unreclaimed Priority 1, Priority 2, or Priority 3 sites (i.e., AML lands and polluted waters) listed in eAMLIS.

2. Previously reclaimed AML lands and polluted waters.

3. Land adjacent to unreclaimed or previously reclaimed AML lands and polluted waters as justified by the State, Tribe, and/or the communities impacted by historic coal production.

Please note: Currently permitted Title V mine sites are not eligible to receive AMLER funds. Formerly permitted mine sites reclaimed after August 3, 1977, that are adjacent to, or connected with, an eligible AMLER project may be included in AMLER funding. Consistent with 30 C.F.R. § 874.16, any person or entity that is in violation of SMCRA is not eligible for AMLER funding.

D. **eAMLIS entries for eligible AMLER projects**

For AMLER-eligible projects, select the appropriate problem type with associated unit(s) and costs. Then, add a new Problem Type Priority 3 (P3) "Other." The two problem types may be linked through Adjacency. (For more discussion on Adjacency please see Chapter 2.) Both problems should be tagged with the AMLER Fund Code (MLR). Add the actual cost of reclamation to the original problem. Subsequently, add the AMLER project costs to the P3 Other entry.

Example: Pennsylvania wants to fund an eligible recreational facility called The Big Mountain Outdoor Recreation Trail project. The project will consist of two sections of trail infrastructure development: 1) reclamation and construction on abandoned mine lands (**covering 10 acres of a nearby P2 DPE and 1,000 linear feet of a P1 DH**) to create 10 miles of trails within The Big Mountain Outdoor Recreation Trail Network, **using $2,000,000 of AMLER funding**; and 2) construction of trail facilities and five miles of feeder trails on adjacent properties that will connect to The Big Mountain Outdoor Recreation Trail Network, leveraging private funding (see Chapter 2 for details on alternate funding sources).

This fictitious AMLER project would have three main entries:

1. **P2 DPE, MLR** Fund Code, 10 acres, with an estimated Unfunded Cost of $400,000. A Priority Documentation form, maps, and cost estimates should be uploaded for this P2 DPE.

2. **P1 DH, MLR** Fund Code, 1,000 linear feet, with and estimated Unfunded Cost of $100,000. The construction costs for the DPE and DH should reflect the actual costs to reclaim these two problem type features. A Priority Documentation form, maps, and cost estimates should be uploaded for this P1 DH.

3. **P3 Other, MLR** Fund Code: the units recorded could be the miles of main and feeder trails for the project but due to the nature of the P3 Other problem type, units vary and are not counted in OSM's GPRA Annual Reports and Accomplishments. In this example, the remaining $1,500,000 is the Unfunded Costs for the various trails and trail facilities. Although this P3 Other does not require a Priority Documentation form, Pennsylvania will upload all supporting eligibility documentation, maps, and cost details for this AMLER project here. Additional notes should be added to the PAD Comments section.

Contact the eAMLIS Coordinator with any questions relating to AMLER project entries.

CHAPTER 12

BIPARTISAN INFRASTRUCTURE LAW (BIL)

A. Background

The Bipartisan Infrastructure Law (BIL) (Pub. L. No. 117-58), also known as the Infrastructure Investment and Jobs Act was enacted on November 15, 2021. The BIL authorized and appropriated $11.293 billion for deposit into the Abandoned Mine Reclamation Fund administered by OSMRE. Of the $11.293 billion appropriated OSMRE will distribute approximately $10.873 billion in BIL Abandoned Mine Land (AML) grants to eligible States and Tribes on an equal annual basis —approximately $725 million a year over a 15-year period. In accordance with Executive Order 14008 States and Tribes are encouraged to prioritize projects that equitably provide funding under the Justice40 Initiative towards meeting the goal that 40 percent of the overall benefits flow to disadvantaged communities.

BIL funds will expand the AML Reclamation Program to meet the priorities described in the BIL and the Surface Mining Control and Reclamation Act of 1977, as amended. States and Tribes may use BIL AML grants to address coal AML problems, including:

- Hazards resulting from legacy coal mining that pose a threat to public health, safety, and the environment within their jurisdictions (including, but not limited to, dangerous highwalls, waste piles, subsidence, open portals, features that may be routes for the release of harmful gases, acid mine drainage, etc.);

- Water supply restoration (infrastructure);

- Coal AML emergencies (Fund Code: **EBI** for BIL-funded emergency projects); and

- Deposit up to 30% of annual BIL AML grant funds in a State or Tribal long-term abandoned mine land reclamation fund to be expended on the abatement and treatment of acid mine drainage, subsidence, and coal mine fires. (Fund Code: STA for STREAM Act funded problems.)

B. Eligible States and Tribes

Pursuant to section 40701(b)(2) of the BIL, eligible grant recipients include both certified and uncertified States and Tribes carrying out approved AML Programs. A certified State or Tribe is a State or Tribe that has certified that all coal reclamation projects that are considered a priority under section 403(a)of SMCRA have been completed. An uncertified State or Tribe is a State or Tribe that has not yet made the certification that reclamation of all priority coal reclamation projects in the State or on applicable Indian lands have been completed.

C. Eligible Projects and Prioritization

BIL AML funding may only be spent on coal reclamation projects. According to section 40701(c) of the BIL, BIL AML grants may only be used on one or more of the following:

1. **Priority 1 Projects** – These projects protect public health and safety from extreme effects of coal mining practices, including the restoration of adjacent land and water resources and the environment (Section 403(a)(1) of SMCRA).

2. **Priority 2 Projects** – These projects protect public health and safety from adverse effects of coal mining practices, including the restoration of adjacent land and water resources and the environment (Section 403(a)(2) of SMCRA).

3. **Priority 3 Projects** – These projects restore land and water resources and the environment previously degraded by adverse effects of coal mining practices (Section 403(a)(3) of SMCRA). These projects may include the design, construction, operation, maintenance, and rehabilitation of acid mine drainage (AMD) treatment facilities regardless of whether they are part of a qualified hydrologic unit.

4. **Water Supply Restoration Projects** - protection, repair, replacement, construction, or enhancement of facilities relating to water supply, including water distribution facilities and treatment plants, to replace water supplies adversely affected by coal mining practices (Section 403(b) of SMCRA).

5. **AML Emergency Projects** - Emergency projects that restore, reclaim, abate, control, or prevent adverse effects of coal mining practices, on eligible lands when an emergency exists constituting a danger to the public health, safety, or general welfare and no other person or agency will act expeditiously to restore, reclaim, abate, control, or prevent adverse effects of coal mining practices (Section 410 of SMCRA).

In addition to the above uses, Division DD, Title VIII, Sec. 801 of the Consolidated Appropriations Act, 2023, (commonly referred to as the "STREAM Act" after the standalone legislation containing the language) amended section 40701(c) of the BIL to authorize eligible States and Tribes to retain up to 30 percent of the "total amount of a grant made annually" under section 40701(b)(1) of the BIL in a "long-term abandoned mine land reclamation fund established under State law, from which amounts (together with all interest earned on the amounts) are expended by the State or Tribe" for (1) the abatement of the causes and the treatment of acid mine drainage resulting from coal mining practices including costs associated with acid mine drainage treatment systems; (2) the prevention, abatement, and control of subsidence; or (3) the prevention, abatement, and control of coal mine fires.

AML projects that are exclusively funded using BIL long-term abandoned mine land reclamation funds must be entered into eAMLIS upon completion.

Use of BIL funding differs from the traditional fee-based AML funding in a few important ways:

a. Stand-alone projects classified as Priority 3 under SMCRA Title IV are eligible for BIL funding, whether or not the project is in conjunction with other projects classified as Priority 1 and Priority 2 projects under SMCRA Title IV;

b. AMD treatment projects that are not part of a qualified hydrologic unit are eligible for BIL funding;

c. Unlike fee-based AML funding, BIL AML funding placed in a long-term abandoned mine land reclamation fund can also be used for coal mine fires and subsidence, in addition to AMD treatment projects.

NOTE: At the time of this revision, the mechanisms to capture reporting measures unique to BIL projects in eAMLIS are currently under development.

CHAPTER 13

GLOSSARY

Term	Definition
Abandoned Mine Land Inventory	A national system for recording health and safety and environmental impacts associated with abandoned coal mines. It also contains limited information on non-coal mine related problems. The Inventory contains information on the location, type, and extent of AML impacts, as well as information on the cost associated with the reclamation of those problems. The Inventory is based upon field surveys by State, Tribe, and OSMRE program officials, and is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed. The AML Inventory consists of the information collected about AML impacts, the guidance documents for managing the information, and the eAMLIS computerized database.
Abandoned Mine Land Inventory System (eAMLIS)	A computerized database containing the AML Inventory information. eAMLIS stores data and related information and provides information (reports, maps, data files) showing the status of unfunded, funded, and completed Priority 1 and 2 AML problems for pre-SMCRA coal State grant reclamation programs, the FRP, and the USDA/NRCS RAMP. In addition, eAMLIS contains unfunded, funded and completed problems for the following programs/priorities: State grant reclamation of Priority 3 problems, post-SMCRA interim coal sites and insolvent surety coal sites, and non-coal sites. eAMLIS contains information on completed problems for Priority 4 (facilities), and Priority 5 (earlier projects for the development of public lands), AMD-Set-Aside sites, and State and Federal Emergency Programs. It also contains limited information on remining, and reclamation accomplished through other means, such as private citizens. It also contains completed information on accomplishments by Certified States and Tribes using 411(h)(1) and (h)(2) funding to maintain certification, address non-coal hazards, conduct projects to address the impacts of mineral development, and for non- mining related purposes.
30% Acid Mine Drainage Set-Aside Program	A program established under Section 402(g)(6)(A) of SMCRA whereby a State may set-aside up to 30% of the funds received under Section 402(g)(1) and (g)(5) for the purposes of abatement and treatment of the effects of acid mine drainage. Prior to December 20, 2006, the set-aside was limited to 10%; thus previously referred to as the 10% Acid Mine Drainage Set-Aside.

Adjacent Land and Water Resources	Eligible land and water resources geographically contiguous to a site that has been or will be addressed to protect the public health, safety, and property from extreme danger or adverse effects of coal mining practices. States and Tribes may record cost information for an adjacent land and water resource (Priority 3 Problem Type feature) as a Priority 1 or 2 expenditure when it is geographically contiguous to a current or previously reclaimed Priority 1 or 2 site.
AML Fund	A special fund created on the books of the Treasury of the United States and administered by OSMRE
AML Problem Priority	Funding priorities established by Congress in Section 403(a) of SMCRA. In general, the priorities are defined in terms of their potential impacts on public health and safety and to the environment.
Approved Reclamation Plan	A plan submitted and approved under Part 884 of 30 CFR.
Authorization to Proceed	A formal notification of OSMRE's approval for the expenditure of grant funds to begin construction on a specific project. The ATP process ensures that States/Tribes have taken all actions necessary to ensure compliance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.) and any other applicable laws, clearances, permits, or requirements.
Certification	The Governor of a State, or the head of a governing body of a Tribe, with an approved abandoned mine land reclamation program, may certify to the Secretary of the Interior that all of the known coal problem priorities stated in Section 403(a) of SMCRA for eligible lands and waters have been addressed. In addition, the Secretary may, on behalf of a State or Tribe, certify the completion of all known coal problems. Under either approach, the Secretary must provide an opportunity for public comment in the Federal Register prior to a final decision.
Completed	An AML reclamation project is considered completed for purposes of the AML Inventory when construction is complete.
Consolidated Appropriations Act 2023	Division DD, Title VIII, Sec. 801 of the Consolidated Appropriations Act, 2023, (commonly referred to as the "STREAM Act" after the standalone legislation containing the language) amended section 40701(c) of the BIL to authorize eligible States and Tribes to retain up to 30 percent of the "total amount of a grant made annually" under section 40701(b)(1) of the BIL in a "long-term abandoned mine land reclamation fund established under State law, from which amounts (together with all interest earned on the amounts) are expended by the State or Tribe" for (1) the abatement of the causes and the treatment of acid mine drainage resulting from coal mining practices including costs associated with acid mine drainage treatment systems; (2) the prevention, abatement, and control of subsidence; or (3) the prevention, abatement, and control of coal mine fires.

Eligible Lands and Waters	As specified in Sections 404 [coal] and 411 [non-coal] of SMCRA, land and waters which were mined for coal and other minerals, or which were affected by such mining or processing and abandoned or left in an inadequate state of reclamation, and for which there is no continuing reclamation responsibility under State or other Federal laws. Section 404 contains cross-references to other SMCRA sections for lands and waters eligible for reclamation: 402(g)(4) post-SMCRA interim program and insolvent surety sites; 403(b)(1) water supply projects; and 409 pre-certification non-coal related problems.
Emergency	A sudden danger or impairment that presents a high probability of substantial physical harm to the health and safety of people before the danger can be abated under normal program operation procedures.
Federal Reclamation Program	An OSMRE program that conducts emergency and high priority reclamation in States/Tribes not having their own emergency or AML programs.
Federal Assistance Manual	Official repository of policies and procedures for the management and administration of OSMRE's financial assistance programs.
411(f)	Construction of public facilities authorized under Section 411(f) of SMCRA by certified States and Tribes (see definition of Priority F below).
Funded	An AML reclamation project is considered funded for purposes of the AML Inventory when OSMRE approves an Authorization to Proceed or a construction contract has been signed.
Geographically Contiguous	For the purposes of implementing the definition of Adjacent Land and Water Resources Priority 3 reclamation, a land and water reclamation Problem Type feature (Priority 3) will be considered geographically contiguous if it is touching along a boundary or at a point to either a Priority 1 or Priority 2 site that contained or still contains a Priority 1 or Priority 2 health and safety problem.
Historical Coal Distribution	A formula based on the amount of coal historically produced in the State or from the Tribe lands, prior to August 3, 1977.
Insolvent Surety Sites	Lands and waters mined for coal or affected by coal mining practices where the mining occurred and the area was left in either an unreclaimed or inadequately reclaimed condition between August 4, 1977 and November 5, 1990; where the surety of the mining operator become insolvent during such period, and that, as of November 5, 1990, funds immediately available from proceedings relating to such insolvency or from any financial guarantee or other sources are not sufficient to provide for adequate reclamation or abatement at the site.
Problem Type	An AML Problem Type is a defined category of AML problem (i.e., DH = dangerous highwall).

Problem Type Feature	A Problem Type feature is a specific on-the-ground feature that meets the definition of one of the AML Problem Types. Within a PA there may be many occurrences of a Problem Type. For example, if a PA contains three different portals plus two different segments of dangerous highwall, there are two Problem Types and five Problem Type features within the PA.
Long-Term Recurring Reclamation Costs	Routine abatement costs subsequent to the completion of the construction phase of a project, such as AMD or drinking water treatment costs. Costs should include direct expenditures for materials, chemicals, maintenance/repairs, sludge removal, and site labor. Consultant contracts and agency personnel expenditures should only be included if it is an essential component of the day-to-day abatement activity such as routine site labor. Design contracts and any agency management costs should not be entered.
Minimum Program	Program established by Congress in 1988 [now in Section 402 (g)(8)] to ensure funding reclamation of high priority problems in States/Tribes where the annual distribution is otherwise too small for the State/Tribe to administer a program and conduct reclamation.
Non-program States and Tribes	States/Tribes having eligible AML problems but no AML program.
OSM 76 Form	See Abandoned Mine Land Problem Area Description (PAD) (OSM-76: OMB Number: 1029-0087). The paper version of this form has been eliminated.
Planning Unit	Subdivision(s) of Water Cataloging Units (WCU) established by the Water Resources Council.
Populated Area	Populated area is one where anyone lives within a half mile of the problem.
Pre-SMCRA	Prior to the enactment of SMCRA on August 3, 1977.
Priority 1	An AML problem category meeting the conditions under Section 403(a)(1) [coal], or 411(c)(1) [non-coal] of SMCRA concerning the protection of public health, safety, and property from extreme danger of adverse effects of mining practices or a condition that could reasonably be expected to cause substantial physical harm to persons or property, and to which persons or improvements on real property are currently exposed. **NOTE**: eAMLIS allows the costs for land and water reclamation adjacent to health and safety problems to be recorded as high priority expenditure. See Chapter 2.
Priority 2	An AML problem category meeting the conditions under Section 403(a)(2) [coal] or 411(c)(2) [non-coal] of SMCRA concerning the protection of public health and safety from the adverse effects of mining practices or a condition that is threatening people but is not an extreme danger. **NOTE**: eAMLIS allows the costs for land and water reclamation adjacent to health and safety problems to be recorded as high priority expenditure. See Chapter 2.

Priority 3	An AML problem category meeting the conditions under Section 403(a)(3) [coal] or 411(c)(3) [non-coal] of SMCRA concerning the restoration of land and water resources and the environment previously degraded by the adverse effects of mining practices or a condition that is causing degradation of soil, water, woodland, fish, wildlife, recreational resources, or agricultural productivity. **NOTE**: eAMLIS allows the costs for land and water reclamation adjacent to health and safety problems to be recorded as high priority expenditure. See Chapter 2.
Priority 4	Funding under Section 403(a)(4) of SMCRA prior to its elimination by Congress in the 2006 amendments to SMCRA for the protection, repair, replacement, construction, or enhancement of public facilities such as utilities, roads, recreation, and conservation facilities adversely affected by coal mining practices. Also includes funding under Section 411(e) for the construction of public facilities in communities impacted by coal or other mineral mining or processing practices as they relate to the priorities stated in SMCRA 411(c).
Priority 5	Funding under Section 403(a)(5) of SMCRA prior to its elimination by Congress in the 2006 amendments to SMCRA for the development of publicly owned land adversely affected by coal mining practices including land acquired for recreation and historic purposes, conservation, reclamation purposes, and open space benefits.
Priority F	A pseudo priority created to allow work completed under Section 411(f) of SMCRA to be entered into the eAMLIS. There is no priority actually associated with these projects.
Priority B	A pseudo priority created to allow work completed under Section 403(b) of SMCRA to be entered into the eAMLIS. There is no priority actually associated with these projects.
Priority H	A pseudo priority created to allow work completed under Section 411(h) of SMCRA to be entered into the eAMLIS. These expenditures were authorized under the 2006 AML Reauthorization amendments to SMCRA. There is no priority actually associated with these projects.
Priority Documentation	The process and eAMLIS documentation related to establishing priorities for certain AML Problem Types.
Priority Documentation Forms	Forms in Chapter 4 contain specific questions that establish the priority of AML Problem Type features. Priority Documentation Forms reproduced in a State/Tribe electronic format are acceptable substitutes as long as they contain all elements within the forms in Chapter 4.
Problem Area	A subdivision(s) of a PU, containing one or more Problem Type(s) together with immediately adjacent impacted land and water.
Problem Area Description (PAD)	The Problem Area Description (PAD) is specific information required to establish an approved Problem Area within eAMLIS to describe AML problems. The PAD is OSM-76 form (OMB Number: 1029-0087). The paper version of this form was eliminated in 2010 when PAD information was fully converted to an electronic format. eAMLIS updates are required by all system participants.

Program State/Tribe	State/Tribes having an OSMRE approved AML Program.
Program Area	Used to distinguish the different sources of funding for AML reclamation, most of which are different programs such as Pre-SMCRA Coal, Emergencies, RAMP, and Certified Program 411(h)(1) or 411(h)(2).
Qualified Hydrologic Unit	See also CFR 876.12 Eligibility A "qualified hydrological unit" means a hydrologic unit which meets the following requirements: 1. Water quality has been significantly affected by acid mine drainage from coal mining practices in a manner that adversely impacts biological resources. 2. The unit contains lands and waters that meet both the following requirements: a. Eligible under section 404 of SMCRA and include any of the coal priorities described in section 403(a). b. The subject of expenditure from the forfeiture of a bond under section 509 or from other State sources to abate and treat acid mine drainage.
Reclamation Plan	See Approved Reclamation Plan.
Research	Research and demonstration projects relating to the development of surface coal mining reclamation and water quality control methods and techniques. Pursuant to the provisions of the 1990 amendments to SMCRA, Priority 4 coal related research and demonstration projects can no longer be funded. The old Priority 4 projects are now called Research projects.
Rural Abandoned Mine Program (RAMP)	A program administered by the USDA/NRCS (formerly the Soil Conservation Service. It is primarily aimed at addressing problems posed by eligible AML problems in rural areas. The program ceased to be eligible to receive Title IV funding as a result of the 2006 amendments to SMCRA.
STREAM Act Provision	*See* the Consolidated Appropriations Act 2023
Unfunded	For purposes of the AML Inventory, an unfunded problem is one which OSMRE has yet to approve an Authorization to Proceed or a contract for a construction project to reclaim the problem has not been signed.