



BUDGET The United States Department of the Interior **JUSTIFICATIONS**

and Performance Information
Fiscal Year 2020

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

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TABLE OF CONTENTS

EXECUTIVE SUMMARY1

 Overview..... 1

 Budget Highlights7

 Appropriations Language 10

 Summary of Requirements 14

 Justification of Fixed Costs and Internal Realignments 15

BUDGET AT A GLANCE17

ENVIRONMENTAL RESTORATION.....23

 1. State Program Evaluation.....28

 2. Federal Reclamation Program.....29

 a. Federal Reclamation Projects30

 b. Program Staff (Operations).....33

 3. Program Development and Maintenance.....33

 a. AML Inventory.....34

 b. Grants Management.....35

 c. State Program Amendments35

 2019 Planned Program Performance36

 2018 Program Accomplishments.....37

ENVIRONMENTAL PROTECTION39

 1. State and Tribal Funding.....44

 a. State Grants.....44

 b. Tribal Regulatory Development and Regulatory Program Grants45

 2. State Program Evaluation45

 a. Oversight Policy and Procedures.....45

 b. Oversight Inspections46

 c. Identifying and Correcting Violations of SMCRA.....47

 3. Federal and Indian Lands Program48

 a. States.....49

 b. Tribes.....51

 4. OSMRE Responsibility on Federal Lands53

 5. Program Development and Maintenance.....54

 a. Rulemaking.....54

 b. Grants Management.....55

 c. Special Projects.....55

 2019 Planned Program Performance57

2018 Program Accomplishments	58
TECHNOLOGY DEVELOPMENT AND TRANSFER.....	59
1. Technical Assistance	64
a. Technical Policy Assistance	64
b. Site-Specific Technical Assistance	68
c. National Mine Map Repository	72
d. Coal Information Management System (CIMS).....	73
e. Technical Innovation and Professional Services (TIPS)	73
f. Applicant/Violator System (AVS).....	75
2. Technical Training	76
a. National Technical Training Program	76
b. TIPS Software Application Training	78
c. Regional/Site Specific Training.....	78
3. Technology Transfer	79
a. Technology Development.....	80
b. Technology Transfer and Publications	80
c. Educational Outreach and Partnerships	82
2019 Planned Program Performance	84
2018 Program Accomplishments	86
FINANCIAL MANAGEMENT.....	89
1. Fee Compliance.....	93
a. AML Fee Collection	93
b. AML Fee Audit	94
2. Grant Financial Management.....	98
3. Revenue Management.....	100
4. United Mine Workers of America Health Benefit Plans (UMWAF) Transfers	100
2019 Planned Program Performance	102
2018 Program Accomplishments.....	102
EXECUTIVE DIRECTION AND ADMINISTRATION.....	103
1. Executive Direction.....	107
a. Office of the Director (DIR)	107
b. Office for Equal Opportunity (OEO).....	107
c. Office of Communications (OC)	108
d. Office of Planning, Analysis and Budget (OPAB)	109
e. Information Resources Office (IRO)	109
2. Administrative Support.....	110
a. Administration	110
b. Human Resources (HR).....	111
c. Administrative Financial Management.....	112
d. Information Management and Technology (IMT).....	112

3. General Services	113
2019 Planned Program Performance	115
2018 Program Accomplishments	116
PERMANENT APPROPRIATIONS.....	117
BUDGET EXHIBITS	123
Exhibit A: Section 403 Compliance	123
Exhibit B: Employee Count by Grade (PER-4).....	124
Appendixes.....	125
AML Reclamation Accomplishments.....	125
By State and Tribe Funding Data	126
Organizational Chart.....	127
Abandoned Mine Land Program States	128
Regulatory Programs and Office Locations.....	129
Alignment of Legacy Regions to DOI Unified Regions.....	130

TABLE INDEX

Table 1 – State, Tribal, and Federal Responsibility for the AML Program28

Table 2 – Inspections Conducted in Primacy States in FY 2018.....47

Table 3 – Permit and Permit Revision Workload Where OSMRE is the Regulatory Authority52

Table 4 – Inspections Conducted by OSMRE in the Federal and Indian Lands Program.....53

Table 5 – Mining Plan Decision Document Workload on Leased Federal Coal, by Fiscal Year.....54

Table 6 – FY 2018 State Program Amendment Activity55

Table 7 – Deposits to the AML Fund and AML Production Fees.....96

Table 8 – Summary Status of Abandoned Mine Reclamation Fund97

Table 9 – AML Unappropriated Balance99

Table 10 – UMWA Transfer Requests101

Table 11 – Estimated General Services Costs114

Table 12 – Permanent Appropriation Estimates118

Table 13 – Mandatory Funding for States and Tribes, FY 2018-2020.....122

TAB

Executive Summary

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EXECUTIVE SUMMARY

Overview

The mission of the Office of Surface Mining Reclamation and Enforcement (OSMRE) is to carry out the requirements of the Surface Mining Control and Reclamation Act (SMCRA or the Act) in cooperation with the States and Tribes.

OSMRE's primary objectives are to:

- (1) ensure that coal mine surface activities are operated in a manner that protects citizens and the environment during mining,
 - (2) ensure that the land is restored to beneficial use following mining, and
 - (3) mitigate the effects of past mining by aggressively pursuing reclamation of abandoned coal mines.
-

Each coal mine operation in the United States must be permitted and regulated under the provisions of SMCRA. At publication of this document, there were over 5,000 permits on active and inactive coal mining sites covering 2.5 million acres Nationwide. These sites all require regulatory activity for permit approvals, monitoring, inspection, enforcement, and bond release approval.

OSMRE has statutory responsibility for administering programs to control the environmental impacts of surface coal mining operations pursuant to Title V of the Act, as well as for administering the program for the restoration of abandoned and unreclaimed mined areas pursuant to Title IV of the Act. OSMRE authorizes States and Tribes, upon approval of their regulatory and reclamation programs, to perform these responsibilities subject to OSMRE oversight. With this authority, primacy States directly regulate about 98 percent of the permitted sites in the Nation. OSMRE oversees the State and Tribal programs and provides training, technical assistance, support, and tools to help ensure effective, consistent, and high quality regulatory and reclamation programs across the Nation.

OSMRE's FY 2020 budget supports the Presidential and Secretarial priority of supporting the environmentally responsible development of energy. It provides for the oversight of responsible coal production through the protection, preservation, and restoration of mined lands and the restoration of mined lands left unreclaimed from past mining operations. The FY 2020 budget focuses funding on OSMRE's core mission requirements, realigns available resources to support the highest priority efforts, and eliminates redundancies in funding for other programs and activities.

Environmental Restoration Title IV (Abandoned Mine Land Reclamation)

OSMRE supports the Department of the Interior’s (DOI) goal of Providing Stewardship of Land, Surface Water, Stream, and Shorelines under the mission area of “Conserving Our Land and Water” in its Strategic Plan for Fiscal Years 2018-2022 through its Environmental Restoration activities. SMCRA requires that all operators of coal mining operations pay an Abandoned Mine Land (AML) Reclamation fee, based on tons of coal produced, into the Abandoned Mine Reclamation Fund in order to hold producers and users of coal responsible for reclaiming lands mined for coal and left abandoned prior to August 3, 1977. OSMRE collects the AML fee, and then annually distributes the fee receipts to States and Tribes for reclamation activities based on a statutorily prescribed formula.

The Tax Relief and Health Care Act of 2006 (Public Law 109-432), which included amendments to SMCRA (2006 Amendments), extended the fee authorization through September 30, 2021, made reclamation grants from the AML fund mandatory, and created new mandatory and unrestricted payments to States and Tribes that certified they had completed their coal reclamation work. The 2006 Amendments significantly increased funding provided to States and Tribes, from \$145.3 million in FY 2007 to a distribution of \$310.5 million in FY 2019.

In 2012 and 2013, additional amendments to SMCRA limited the amount of funding available to the certified States and Tribes. The Fixing America’s Surface Transportation (FAST) Act (Public Law 114-94), enacted in December 2015, however, lifted the limitations provided by the earlier amendments, and also provided for \$241.9 million in payments to certain eligible certified States and Tribes. These funds were distributed in FY 2016.

As of September 2018, an estimated \$10.1 billion of reported Priority 1, 2, and 3 unfunded coal abandoned mine land problems remain. OSMRE will concentrate its limited discretionary resources on State Program Evaluation and Federal Reclamation Program operations. These programs work directly on reclaiming abandoned mine lands and to fulfill OSMRE’s Title IV obligations. The FY 2020 budget does not request funding for the discretionary AML Economic Development Pilot fund, established in the Consolidated Appropriations Act, 2016 (Public Law 114-113) and continued in both the Consolidated Appropriations Act, 2017 (Public Law 115-31) and the Consolidated Appropriations Act, 2018 (Public Law 115-141), which overlaps with existing mandatory AML grants.

With its mandatory appropriations authority, OSMRE will continue to collect reclamation fees from operators¹, allocate and distribute reclamation grant funds to States and Tribes, and make payments to the United Mine Workers of America (UMWA) health benefits plans, in accordance with the provisions of Title IV of SMCRA.

(See the Permanent Appropriations Section for more details)

¹ Section 1232 of SMCRA authorizes OSMRE to collect reclamation fees from operators of coal mining operations through September 30, 2021.

Environmental Protection

Title V of SMCRA (Active Mining)

OSMRE supports DOI Secretarial priorities to “sustainably develop our energy and natural resources” and to “strike a regulatory balance” through its Environmental Protection activities. OSMRE’s statutory role is to promote and assist its partner States and Tribes in establishing and maintaining a stable regulatory environment for coal mining that is consistent with SMCRA and administered through primacy State programs, or directly by OSMRE as the regulatory authority. That regulatory stability enables all parties, including operators, regulators and citizens, to have a common understanding of applicable requirements and rights so that each can make informed decisions affecting their economic and personal interests with a minimum level of controversy.

It is important for coal to be responsibly mined and to ensure that the land is reclaimed in accordance with land use plans established during the permitting process consistent with the law. Annual performance agreements developed for each State, with stakeholder input, outline the responsibilities and activities of both the State and OSMRE. Among other things, the agreements contain program evaluation goals and the technical or programmatic assistance that OSMRE may render to the States to address identified problems, for both new issues and those remaining from prior years. With greater technical skills, OSMRE anticipates improved performance regarding permit-related actions and resolution of issues.

To assist primacy States with their regulatory programs, OSMRE provides technical assistance and training, and funding in the form of regulatory grants. These grants provide up to 50 percent of a State’s operating costs for regulating private coal and up to 100 percent of a State’s operating costs for regulating mining on Federal lands within the State. OSMRE also provides grants to Tribes to assist them in developing regulations and programs for regulating surface coal mining and reclamation operations on Indian lands. The budget includes grants to States and Tribes consistent with their actual expenditures over the past few years.

Review of State permitting actions and inspections of mine sites are among the most effective ways to determine if the State’s mining law is being properly implemented. In FY 2018, States performed 24,550 complete and 37,591 partial mine inspections. OSMRE completed 614 partial and 475 complete inspections in its Federal and Indian Lands Programs. Nationwide, 90 percent of the permitted sites inspected were free of off-site impacts. Off-site impacts are those that occur outside the permitted area that have the potential to harm the environment or the public as specified under the existing regulations. The off-site impacts associated with active sites are addressed through the inspection and enforcement processes. It is also important that the land is reclaimed properly and in a timely manner to return the land to its intended post-mining land use.

Training and Technological Advances

OSMRE supports the coordination of science activities across bureaus which help achieve the DOI’s mission objectives, and has identified several key areas for investment where coordination with other Department bureaus will leverage results to more effectively achieve mission outcomes. The FY 2020 budget facilitates this coordination by supporting integrated efforts to achieve management efficiencies.

OSMRE uses emerging technologies, tools and methodologies to elevate the understanding of resources related to coal mining on a landscape-level. OSMRE's Technology Development and Transfer business line will focus on the training and technical innovation that directly supports OSMRE's Environmental Protection mission of regulatory oversight and its Environmental Restoration mission of abandoned mine land reclamation.

The 2020 budget provides the resources required to meet the demand from States, Tribes, public interest groups, and internal customers for OSMRE to provide technical support on coal mining activities. Activities include development of policy/guidance documents for technical issues, such as blasting, as well as onsite review and guidance on the application of regulations to specific permits and mine sites.

Management and Efficiencies

OSMRE supports the DOI's and the Administration's initiative to improve programs through an evidence-based approach, while holding program managers accountable for improving performance. OSMRE's Performance Management Workgroup continues to monitor and comprehensively evaluate established performance measures. These efforts improve OSMRE's efficiency by providing better quality information for managers to make informed decisions and provide a better understanding of performance data. Other efforts underway, and reflected in the FY 2020 budget, include data center consolidation, the use of emerging technologies to more effectively and efficiently inspect and evaluate potential coal mine related problems, and the consolidation of OSMRE's Western Region Headquarters and Division of Financial Management into a shared office space at the Denver Federal Center.

Government Reform

President Trump signed an Executive Order to modernize and reform the executive branch and Interior is leading the way, developing and executing a program that will streamline processes and better serve the American people. The absolute first step in building a better and more efficient executive branch though is fostering a culture of ethics and respect amongst colleagues.

Interior has launched several top management objectives to better achieve Departmental goals and lead the agency moving forward. From day one of this Administration, Interior's leadership has made the work environment a priority. There is zero tolerance for any type of workplace harassment at Interior. The Department is instilling a culture change through clear management accountability, swift personnel actions, reporting procedures for harassment conduct, improved training, and substantive action plans.

In the area of anti-harassment efforts, each bureau and office has made significant headway in putting a diverse set of measures in place to prevent and address unacceptable conduct. Interior has also launched an internal Workplace Culture Transformation Advisory Council to include leadership from across the Department to keep a focus on Interior's commitment to the workplace environment. The Council will look at common issues raised in the Federal Employee Viewpoint Survey, ways to improve employee engagement, and building career paths which cross bureau silos; all with the goal to transform Interior's workplace culture for our employees, so they can realize their individual potential and be their most productive selves for the American people.

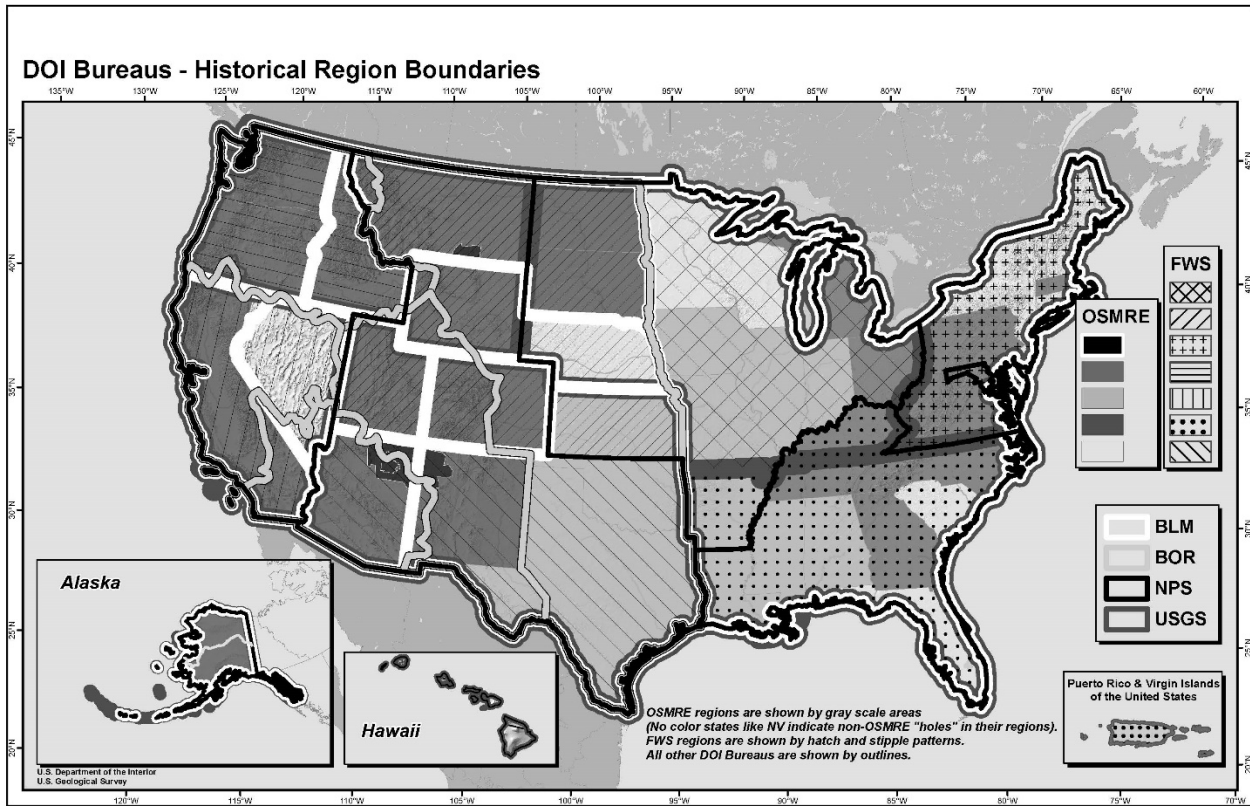
Another management priority is creating a strong ethical culture to ensure Interior employees honor the public's trust to manage taxpayer funds responsibly and avoid conflicts of interest. The expectations for appropriate employee conduct have been made clear. The Department has set goals and expectations for qualified ethics officials within Interior sufficient to ensure our operations are conducted ethically and ensure all employees have access to prompt, accurate ethics advice.

DOI Reorganization

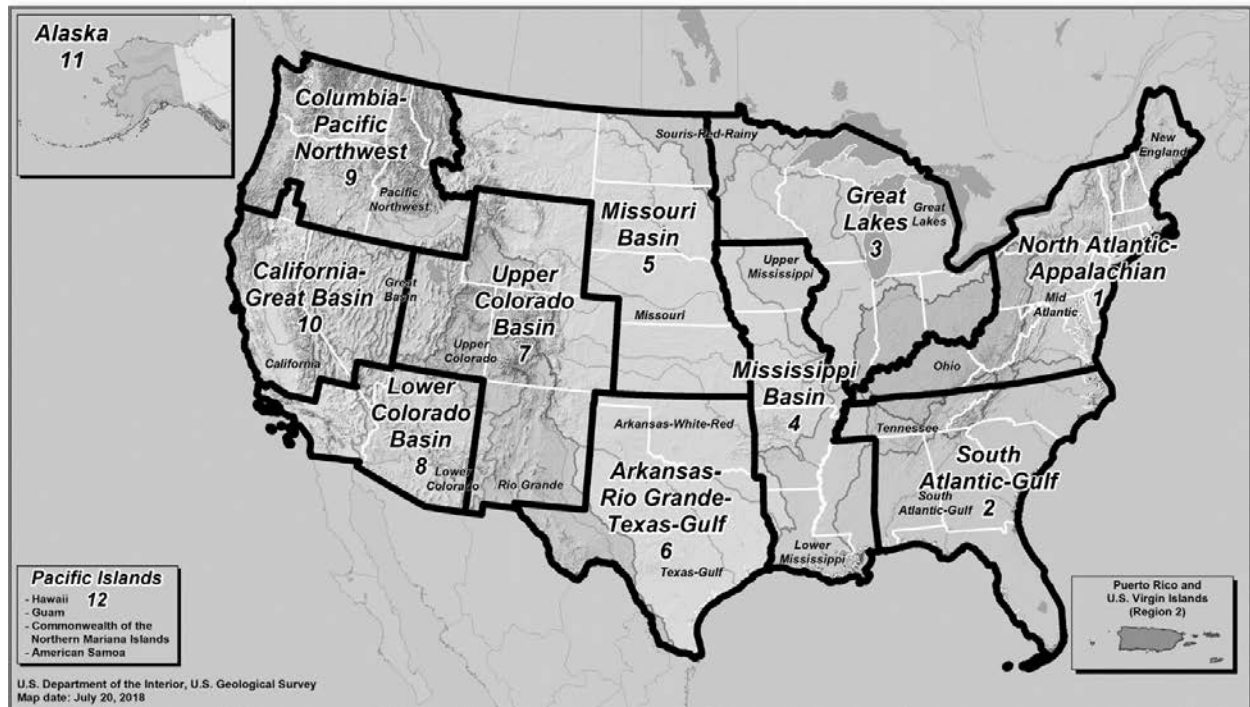
Over many decades, the Department of the Interior experienced new bureaus becoming established on an ad hoc basis with their own unique regional organizations. This ultimately resulted in a complicated series of 49 regional boundaries among 8 bureaus. This complexity led to the situation where bureau regional leadership was often focused on different geographic areas, did not have adequate and shared understanding of the needs and perspectives of regional stakeholders, and opportunities to share administrative capacity across bureaus were difficult to recognize and implement. Further, members of the public were often frustrated by problems in inter-bureau decision making where uncoordinated timelines and processes could lead to unnecessarily long delays in reaching a decision. The Department's reorganization is focused on making improvements across each of these areas.

On August 22, 2018, after working closely with stakeholders across the country on options to consolidate Interior's 49 different regions into common regions, the Department announced the designation of Interior's 12 new unified regions. As a result of Tribal consultation, BIA, BIE, and the Office of the Special Trustee for American Indians will not realign their regional field structure.

Establishing unified regions across bureaus is the cornerstone of the reforms designed to improve Interior's service delivery to the public. Within each unified region, bureaus will focus work on the same resources and constituents and improve coordination across the Department. For the public, fewer regions make it easier to do business with Interior, particularly when the public interacts with several bureaus or jurisdictions. Interior will leverage the unified regional structure to improve and streamline business operations using shared services and best practices across the Department focusing primarily on human resources, information technology, and acquisition services. Work is underway in 2019 to plan implementation, conduct analysis, and identify areas for collaboration within the new regions.



DOI 12 Unified Regions



Budget Highlights

The FY 2020 Budget Request for OSMRE is \$121.67 million in current appropriations².

OSMRE will focus resources on its core mission functions essential to implementation of SMCRA, provide technical support and assistance to the States and Tribes for regulatory and reclamation programs, support the review and technology transfer of advanced technologies and reforestation of reclaimed mined lands, and evaluate the abandoned mine land program. Below is an outline of the requested changes.

In addition to discretionary appropriations, the budget includes \$512.44 million in mandatory funding for reclamation grants to States and Tribes, and for United Mine Workers of America (UMWA) health benefit plans under current law. Mandatory funding is further described under the Permanent Appropriations Section.

A summary table of the budget is shown below. Information at the account, activity, and sub-activity level is available in the table contained in the Budget-at-a-Glance Section.

Total FY 2020 Budget Request

(Dollars in Thousands)

Budget Authority	2018 Actual	2019 CR Baseline	2020 Request
Regulation and Technology	115,844	115,804	96,960
<i>Civil Penalties (Indefinite Authority)</i>	<i>[4]</i>	<i>[100]</i>	<i>[100]</i>
<i>Permit Fees (Offsetting Collections)</i>		<i>[40]</i>	<i>[40]</i>
Abandoned Mine Reclamation Fund	139,672	139,672	24,713
<i>Total Discretionary</i>	<i>255,516</i>	<i>255,476</i>	<i>121,673</i>
<i>Total Discretionary (with Offsetting Collections)</i>	<i>255,520</i>	<i>255,616</i>	<i>121,813</i>
Payments (or Grants) to States in Lieu of Coal Fee Receipts (Treasury Funds)	106,678	102,994	47,300
Mandatory Grants to Non-Certified States (AML Funds)	194,052	188,302	141,100
Funds Transferred to UMWA Health Benefit Plans (Treasury and AML Funds)	331,459	279,397	324,040
<i>Total Mandatory</i>	<i>632,189</i>	<i>570,693</i>	<i>512,440</i>
Total Discretionary and Mandatory	887,705	826,169	634,113
<i>Total Discretionary and Mandatory (with Offsetting Collections)</i>	<i>887,709</i>	<i>862,309</i>	<i>634,253</i>
<i>FTEs</i>	<i>398</i>	<i>398</i>	<i>398</i>

²This amount does not include \$100,000 in civil penalty authority or offsetting collections.

The FY 2020 budget provides \$43.9 million (36.1 percent) of OSMRE's total discretionary funds in grants to the States and Tribes for regulatory programs. OSMRE will use the balance of the budget to perform its statutory oversight responsibilities, administer Federal regulatory and reclamation programs, provide technical assistance to the States and Tribes, and carry out its fiscal responsibilities for collecting revenues and awarding grants.

OSMRE executes its mission through five Business Lines. OSMRE's Business Lines are:

Environmental Restoration,
Environmental Protection,
Technology Development and Transfer,
Financial Management, and
Executive Direction and Administration.

The budget aligns discretionary funding and FTE across business lines to optimize fulfillment of OSMRE's statutory responsibilities and support of administration priorities.

Implementing SMCRA – Effective Partnerships

In implementing its mission responsibilities, OSMRE works closely with the States and Tribes in administering their regulatory and reclamation programs. OSMRE also recognizes the importance of working with industry, other stakeholders, and citizens in implementing SMCRA. This budget supports using effective partnerships by communicating, consulting, and cooperating with these constituent groups to achieve SMCRA's objectives.

OSMRE continues to emphasize the importance of protecting the environment during and after coal mining operations. OSMRE oversees SMCRA's implementation in 24 primacy States by, among other things, assisting the States in the administration, implementation and maintenance of their approved regulatory programs. This process is detailed further in the Environmental Protection section of this document.

OSMRE, in cooperation with the 25 States and three Tribes that have reclamation programs, will continue to clean up land and waters degraded by past mining practices. The funding provided will assist in the removal of existing health and safety hazards and restoration of areas to productive use. The cooperative process for restoring land and water affected by past mining is detailed further in the Environmental Restoration section of this document.

OSMRE will continue its efforts to establish partnerships to improve and increase outreach efforts that allow full participation from its stakeholders in addressing common problems. These initiatives will assist OSMRE in forging an enduring bond and partnership with its stakeholders.

To better serve its partners and the public, OSMRE continues to improve its abandoned mine land databases to include all eligible abandoned mine sites. In addition, OSMRE's website contains comprehensive information on pertinent regulatory and reclamation matters.

As mining and engineering information technology continues to improve, OSMRE continues to provide to States and Tribes the most up-to-date information, technical training, technical assistance,

and technology transfer. These programs greatly assist the States and Tribes in operating their SMCRA programs. This process is detailed further in the Technology Development and Transfer section of this document.

Appropriations Language

Regulation and Technology

For necessary expenses to carry out the provisions of the Surface Mining Control and Reclamation Act of 1977, Public Law 95-87, \$96,960,000, to remain available until September 30, 2021: Provided, That appropriations for the Office of Surface Mining Reclamation and Enforcement may provide for the travel and per diem expenses of State and Tribal personnel attending Office of Surface Mining Reclamation and Enforcement sponsored training.

In addition, for costs to review, administer, and enforce permits issued by the Office pursuant to section 507 of Public Law 95-87 (30 U.S.C. 1257), \$40,000, to remain available until expended: Provided, That fees assessed and collected by the Office pursuant to such section 507 shall be credited to this account as discretionary offsetting collections, to remain available until expended: Provided further, That the sum herein appropriated from the general fund shall be reduced as collections are received during the fiscal year, so as to result in a fiscal year 2020 appropriation estimated at not more than \$96,960,000.

Note.—A full year 2019 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Act, 2019 (Division C of P.L. 115-245, as amended). The amounts included for 2019 reflect the annualized level provided by the continuing resolution.

Abandoned Mine Reclamation Fund

For necessary expenses to carry out title IV of the Surface Mining Control and Reclamation Act of 1977, Public Law 95-87, \$24,713,000, to be derived from receipts of the Abandoned Mine Reclamation Fund and to remain available until expended: Provided, That pursuant to Public Law 97-365, the Department of the Interior is authorized to use up to 20 percent from the recovery of the delinquent debt owed to the United States Government to pay for contracts to collect these debts: Provided further, That funds made available under title IV of Public Law 95-87 may be used for any required non-Federal share of the cost of projects funded by the Federal Government for the purpose of environmental restoration related to treatment or abatement of acid mine drainage from abandoned mines: Provided further, That such projects must be consistent with the purposes and priorities of the Surface Mining Control and Reclamation Act: Provided further, That amounts provided under this heading may be used for the travel and per diem expenses of State and Tribal personnel attending Office of Surface Mining Reclamation and Enforcement sponsored training.

Note.—A full year 2019 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Act, 2019 (Division C of P.L. 115-245, as amended). The amounts included for 2019 reflect the annualized level provided by the continuing resolution.

Appropriations Language and Citations

Regulation and Technology

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In addition, for costs to review, administer, and enforce permits issued by the Office pursuant to section 507 of Public Law 95-87 (30 U.S.C. 1257), \$40,000, to remain available until expended: Provided, That fees assessed and collected by the Office pursuant to such section 507 shall be credited to this account as discretionary offsetting collections, to remain available until expended: Provided further, That the sum herein appropriated from the general fund shall be reduced as collections are received during the fiscal year, so as to result in a fiscal year 2020 appropriation estimated at not more than \$96,960,000.

- 30 U.S.C. 1260, 1268 – These sections provide for the assessment and collection of penalties levied for violations of the Act, and for the denial of permits to those with unabated violations or unpaid penalties.
- 30 U.S.C. 1252, 1253, 1254, 1271, 1272, 1273, 1295, 1300, 1302 – These sections provide for aid to all primacy States for maintaining approved regulatory programs and evaluation of the States' performance in doing so; monitoring implementation of the grant programs; small operator assistance programs; and for regulatory programs in States without approved programs, on Federal lands and on Indian lands; processing of permit applications and mine plans for Federal lands operations; designating of lands unsuitable for surface mining through technical reviews; scientific/engineering support and technical training for States operating approved permanent programs and Federally administered programs; initiation of technical studies; issuance of technical publications; approval of experimental practices to meet the needs of approved State programs and Federally-administered programs; preparation of environmental assessments and environmental impact statements for permits and other actions; and training of OSMRE staff and State staff to enable these agencies to more effectively carry out the provisions of the Act.
- 30 U.S.C. 1257, as amended by Public Laws 101-508 and 102-486 - Provide for the regulatory authority to designate a qualified laboratory to obtain technical information and prepare technical findings required by the operator for the permit application, and for the regulatory authority to assume the cost for such services. Further, the Act provides for the Secretary to provide or assume the cost of training for regulatory program compliance and permit application preparation for eligible small operators.

Abandoned Mine Reclamation Fund

For necessary expenses to carry out title IV of the Surface Mining Control and Reclamation Act of 1977, Public Law 95-87, \$24,713,000, to be derived from receipts of the Abandoned Mine Reclamation Fund and to remain available until expended: Provided, That pursuant to Public Law 97-365, the Department of the Interior is authorized to use up to 20 percent from the recovery of the delinquent debt owed to the United States Government to pay for contracts to collect these debts: Provided further, That funds made available under title IV of Public Law 95- 87 may be used for any required non-Federal share of the cost of projects funded by the Federal Government for the purpose of environmental restoration related to treatment or abatement of acid mine drainage from abandoned mines: Provided further, That such projects must be consistent with the purposes and priorities of the Surface Mining Control and Reclamation Act: Provided further, That amounts provided under this heading may be used for the travel and per diem expenses of State and Tribal personnel attending Office of Surface Mining Reclamation and Enforcement sponsored training.

- 30 U.S.C. 1231, 1232, 1233 and 1240 – Provides for the payment of fees and other monies into the Abandoned Mine Reclamation Fund (Fund). The Fund consists of amounts deposited from time to time, derived from reclamation fees, donations, audit recoveries, interest charges, and administrative collection fees.

The funds collected are used for the reclamation and restoration of land and water resources adversely affected by past mining.

SMCRA provides for the use of the monies for the purpose of protecting public health, safety, and property from extreme danger of adverse effects of coal mining practices; restoration of land and water resources and the environment previously degraded by adverse effects of coal mining practices, and that are adjacent to a site that has been or will be remediated. It also provides that monies in the Abandoned Mine Reclamation Fund will be used to cover the administrative expenses of the Federal government, accomplish abandoned mine reclamation and develop guidelines on the distribution of monies in the Fund.

Summary of Requirements

Office of Surface Mining Reclamation and Enforcement

(Dollars in Thousands)

	2018 Actual	2019 CR Baseline		Fixed Costs (+/-)	Internal Transfers (+/-)	Program Changes (+/-)		2020 Request		Change from 2019 (+/-)	
	Amount	FTE	Amount			FTE	Amount	FTE	Amount	FTE	Amount
REGULATION AND TECHNOLOGY											
Environmental Protection	88,602	155	88,562	+122		+17	-20,930	172	67,754	+17	-20,808
Technology Development and Transfer	12,801	78	12,801	+53		-	+1,911	78	14,765	-	+1,964
Financial Management	505	3	505	+2		-	-2	3	505	-	-
Executive Direction and Administration	13,936	45	13,936	-814		-	+814	45	13,936	-	-
TOTAL, REGULATION AND TECHNOLOGY	115,844	281	115,804	-637	0	+17	-18,207	298	96,960	+17	-18,844
<i>Civil Penalties (Budget Authority)</i>	4	-	100	-		-	-	-	100	-	-
<i>Permit Fees (Offsetting Collections)</i>	-	-	40	-		-	-	-	40	-	-
TOTAL, REGULATION AND TECHNOLOGY, with Civil Penalties and Offsetting Collections	115,848	281	115,944	-637	0	+17	-18,207	298	97,100	+17	-18,844
ABANDONED MINE RECLAMATION FUND											
Environmental Restoration	9,480	42	9,480	+26		-7	-26	35	9,480	-7	-
Technology Development and Transfer	3,544	15	3,544	+11		-	+21	15	3,576	-	+32
Financial Management	5,182	35	5,182	+22		-6	-13	29	5,191	-6	+9
Executive Direction and Administration	6,466	25	6,466	-398		-4	+398	21	6,466	-4	-
AML Economic Development Pilot Program	115,000	-	115,000	-		-	-115,000	-	-	-	-115,000
TOTAL, ABANDONED MINE RECLAMATION FUND	139,672	117	139,672	-339	0	-17	-114,620	100	24,713	-17	-114,959
TOTAL, DISCRETIONARY (without Offsetting Collections)	255,516	398	255,476	-976	0	-	-132,827	398	121,673	-	-133,803
TOTAL, DISCRETIONARY (with Civil Penalties and Offsetting Collections)	255,520	398	255,616	-976	0	-	-132,827	398	121,813	-	-133,803

Justification of Fixed Costs and Internal Realignments
(Dollars in Thousands)

Regulation and Technology Account (Net -637)

Fixed Cost Changes and Projections	2019 Total or Change	2019 to 2020 Change
Change in Number of Paid Days	+133	+134
This column reflects changes in pay associated with the change in the number of paid days between the 2019 baseline and 2020 Request.		
Pay Raise	+176	+0
The 2020 Request reflects a pay freeze for civilian employees.		
Employer Share of Federal Employee Retirement System	+0	+70
The change reflects the directed 2.3% increase in the employer contribution to the Federal Employee Retirement System.		
Departmental Working Capital Fund	+1,560	-98
The change reflects expected changes in the charges for centrally billed Department services and other services through the Working Capital Fund. These charges are detailed in the Budget Justification for Departmental Management.		
Worker's Compensation Payments	+88	+1
The amounts reflect changes in the estimated costs of compensating injured employees and dependents of employees who suffer accidental deaths while on duty. Costs for the 2020 request will reimburse the Department of Labor, Federal Employees Compensation Fund, pursuant to 5 U.S.C. 8147(b) as amended by Public Law 94-273.		
Unemployment Compensation Payments	+4	+0
The amounts reflect projected changes in the costs of unemployment compensation claims to be paid to the Department of Labor, Federal Employees Compensation Account, in the Unemployment Trust Fund, pursuant to Public Law 96-499.		
Rental Payments	+4,173	-744
The amounts reflect changes in the costs payable to General Services Administration (GSA) and others for office and non-office space as estimated by GSA, as well as the rental costs of other currently occupied space. These costs include building security; which in the case of GSA space are paid to Department of Homeland Security (DHS). Costs of mandatory office relocations, i.e. relocations in cases where due to external events there is no alternative but to vacate the currently occupied space, are also included.		
Baseline Adjustments for O&M Increases	+27	+0
In accordance with space maximization efforts across the Federal Government, this adjustment captures the associated increase to baseline operations and maintenance requirements resulting from movement out of GSA or direct-leased (commercial) space and into Bureau-owned space. While the GSA portion of fixed costs will go down as a result of these moves, Bureaus often encounter an increase to baseline O&M costs not otherwise captured in fixed costs. This category of funding properly adjusts the baseline fixed cost amount to maintain steady-state funding for these requirements.		

Justification of Fixed Costs and Internal Realignments
(Dollars in Thousands)

Abandoned Mine Reclamation Fund (Net -339)

Fixed Cost Changes and Projections	2019 Total or Change	2019 to 2020 Change
Change in Number of Paid Days	+48	+48
This column reflects changes in pay associated with the change in the number of paid days between the 2019 baseline and 2020 Request.		
Pay Raise	+63	+0
The 2020 Request reflects a pay freeze for civilian employees.		
Employer Share of Federal Employee Retirement System	+0	+26
The change reflects the directed 2.3% increase in the employer contribution to the Federal Employee Retirement System.		
Departmental Working Capital Fund	+768	-48
The change reflects expected changes in the charges for centrally billed Department services and other services through the Working Capital Fund. These charges are detailed in the Budget Justification for Departmental Management.		
Worker's Compensation Payments	+43	+1
The amounts reflect changes in the estimated costs of compensating injured employees and dependents of employees who suffer accidental deaths while on duty. Costs for the 2020 request will reimburse the Department of Labor, Federal Employees Compensation Fund, pursuant to 5 U.S.C. 8147(b) as amended by Public Law 94-273.		
Unemployment Compensation Payments	+2	+0
The amounts reflect projected changes in the costs of unemployment compensation claims to be paid to the Department of Labor, Federal Employees Compensation Account, in the Unemployment Trust Fund, pursuant to Public Law 96-499.		
Rental Payments	+2,055	-366
The amounts reflect changes in the costs payable to General Services Administration (GSA) and others for office and non-office space as estimated by GSA, as well as the rental costs of other currently occupied space. These costs include building security; which in the case of GSA space are paid to Department of Homeland Security (DHS). Costs of mandatory office relocations, i.e. relocations in cases where due to external events there is no alternative but to vacate the currently occupied space, are also included.		
Baseline Adjustments for O&M Increases	+13	+0
In accordance with space maximization efforts across the Federal Government, this adjustment captures the associated increase to baseline operations and maintenance requirements resulting from movement out of GSA or direct-leased (commercial) space and into Bureau-owned space. While the GSA portion of fixed costs will go down as a result of these moves, Bureaus often encounter an increase to baseline O&M costs not otherwise captured in fixed costs. This category of funding properly adjusts the baseline fixed cost amount to maintain steady-state funding for these requirements.		

TAB

Budget at a Glance

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BUDGET AT A GLANCE

INTRODUCTION

The following tables provide a snapshot of the cost changes by appropriation, business line and activities within those business lines. Below is a summary description.

Regulation and Technology

This appropriation finances the regulatory functions of SMCRA as administered by the States and OSMRE. Federal activities related to the administration and monitoring of State regulatory programs and OSMRE's technical training, assistance, and transfer activities related to environmental protection are also financed by this appropriation. The request is \$96,960,000.

Abandoned Mine Reclamation Fund

This appropriation supports the discretionary reclamation program functions carried out by the States and OSMRE. The Fund is derived from a fee levied on coal production sales, use, and transfers. The Fund also supports Federal activities related to the administration and monitoring of State programs, as well as OSMRE's technical training, assistance, and transfer activities related to environmental restoration. The request is \$24,713,000.

**Summary of 2019 CR Baseline and 2020 Request
By Appropriation and Business Line**
(Dollars in Thousands)

Regulation and Technology	2019 CR Baseline	2020 Request	Change from 2019
Environmental Protection	88,562	67,754	-20,808
Technology Development and Transfer	12,801	14,765	+1,964
Financial Management	505	505	-
Executive Direction and Administration	13,636	13,936	-
Total, without Offsetting Collections	115,804	96,960	-18,844
<i>Civil Penalties (Budget Authority)</i>	100	100	-
<i>Permit Fees (Offsetting Collections)</i>	40	40	-
Total, Regulation and Technology with Civil Penalties and Offsetting Collections	115,944	97,100	-18,844

Abandoned Mine Reclamation Fund	2019 CR Baseline	2020 Request	Change from 2019
Environmental Restoration	124,480	9,480	-115,000
Technology Development and Transfer	3,544	3,576	+32
Financial Management	5,182	5,191	+9
Executive Direction and Administration	6,466	6,466	-
Total, Abandoned Mine Reclamation Fund	139,672	24,713	-114,959

Total Appropriation (without Civil Penalties and Offsetting Collections)	255,476	121,673	-133,803
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Total Appropriation, with Civil Penalties and Offsetting Collections	255,616	121,813	-133,803
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**Summary of 2019 CR Baseline and 2020 Request
By Full-time Equivalent (FTE)**

Regulation and Technology	2019 CR Estimate	2020 Estimate	Change from 2019
Environmental Protection	155	172	+17
Technology Development and Transfer	78	78	-
Financial Management	3	3	-
Executive Direction and Administration	45	45	-
Total, Regulation and Technology FTE	281	298	+17
Abandoned Mine Reclamation Fund	2019 CR Estimate	2020 Estimate	Change from 2019
Environmental Restoration	42	35	-7
Technology Development and Transfer	15	15	-
Financial Management	35	29	-6
Executive Direction and Administration	25	21	-4
Total, Abandoned Mine Reclamation Fund FTE	117	100	-17
Total FTE	398	398	-

Budget at a Glance Table

(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	Fixed Costs	Internal Transfers	Program Changes	2020 Request
Discretionary						
Appropriation: Regulation and Technology						
Environmental Protection	88,602	88,562	+122		-20,930	67,754
State and Tribal Funding	68,590	68,590			-24,687	43,903
Regulatory Grant Funding					[-24,687]	
State Program Evaluation	8,140	8,140	+59		-119	8,080
Federal and Indian Lands Program	6,054	6,014	+34		+1,693	7,741
Funded by Offsetting Collections		[-40]				[-40]
Improve Mine Plan Review Process					[+1,693]	
Federal Lands	1,414	1,414	+5		+17	1,436
Program Development and Maintenance	4,404	4,404	+24		+2,166	6,594
Improve Mine Plan Review Process					[+2,166]	
Technology Development and Transfer (TDT)	12,801	12,801	+53	-	+1,911	14,765
Technical Assistance	10,232	10,232	+34		+402	10,668
Enhance Coal Information Management System					[+402]	
Training	1,949	1,949	+13		+42	2,004
Technology Transfer	620	620	+6		+1,467	2,093
Increase GeoMine Support to States					[+500]	
Complete AMDTreat Software Development					[+347]	
Procure Unmanned Aerial System					[+150]	
Fund Applied Science Projects					[+470]	
Financial Management	505	505	+2		-2	505
Revenue Management	410	410	+2		-2	410
Grants Financial Management	95	95				95
Executive Direction and Administration	13,936	13,936	-814	0	+814	13,936
Executive Direction	2,054	2,054	+10		-10	2,054
Administrative Support	3,575	3,575	+17		-17	3,575
General Services	8,307	8,307	-841		+841	8,307
Invest in Future Efficiencies					[+841]	
TOTAL, Regulation and Technology	115,844	115,804	-637	0	-18,207	96,960

Budget at a Glance Table
(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	Fixed Costs	Internal Transfers	Program Changes	2020 Request
Appropriation: Abandoned Mine Reclamation Fund						
Environmental Restoration	124,480	124,480	+26	0	-115,026	9,480
State Program Evaluation	2,662	2,662	+11		-11	2,662
Federal Reclamation Programs - Projects	1,548	1,548				1,548
Federal Reclamation Program - Operations	2,066	2,066	+4		-4	2,066
Program Development and Maintenance	3,204	3,204	+11		-11	3,204
AML Economic Development Grants	115,000	115,000			-115,000	-
Technology Development and Transfer (TDT)	3,544	3,544	+11	0	+21	3,576
Technical Assistance	1,585	1,585	+5		+27	1,617
Enhance Coal Information Management System					[+27]	
Training	794	794	+5		-5	794
Technology Transfer	1,165	1,165	+1		-1	1,165
Financial Management	5,182	5,182	+22	0	-13	5,191
Fee Compliance	5,081	5,081	+21		-21	5,081
Grants Financial Management	101	101	+1		+8	110
Executive Direction and Administration	6,466	6,466	-398	0	+398	6,466
Executive Direction	910	910	+4		-4	910
Administrative Support	1,846	1,846	+11		-11	1,846
General Services	3,710	3,710	-413		+413	3,710
Invest in Future Efficiencies					[+413]	
TOTAL, Abandoned Mine Reclamation Fund	139,672	139,672	-339	0	-114,620	24,713
TOTAL, Discretionary Funding	255,516	255,476	-976		-132,827	121,673

Budget at a Glance Table

(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	Fixed Costs	Internal Transfers	Program Changes	2020 Request
Total Regulation and Technology*	115,844	115,804	-637	0	-18,207	96,960
Civil Penalties	4	100				100
Offsetting Collections - Permit Fees	0	40				40
Total Regulation and Technology (with Civil Penalties and Offsetting Collections)	115,848	115,944	-637	0	-18,207	97,100
Total Abandoned Mine Reclamation Fund	139,672	139,672	-339	0	+114,620	24,713
Total, Budget Resources with Offsetting Collections	255,520	255,616	-976	0	-132,827	121,813

* FY 2018 Actual reflects actual Civil Penalties collections of \$3,857, \$0 actual Permit Fee collections, and \$40,000 in appropriated funds for Permit Fee activities in Environmental Protection.

	2018 Actual	2019 CR Baseline	Fixed Costs	Internal Transfers	Program Changes	2020 Request
Mandatory						
Payments to States and Tribes in Lieu of Coal Fee Receipts (Treasury Funds)	106,678	102,994	0	0	-55,694	47,300
In Lieu Payments to Certified States and Tribes	106,678	102,994			-55,694	47,300
Mandatory Grants to States (AML Funds)	194,052	188,302	0	0	-47,202	141,100
Grants to Noncertified States						
State & Tribal Share	25,212	25,522			+1,078	26,600
Historic Coal Fund	151,377	145,521			-53,821	91,700
Minimum Program Make Up	17,463	17,259			+5,541	22,800
United Mine Workers of America Plans (UMWA)	331,459	279,397	0	0	+44,643	324,040
Payments to United Mine Workers of America Health Benefit Plans (AML Fund Interest)	46,257	54,321			+5,777	60,098
Payments to United Mine Workers of America Health Benefit Plans (Treasury Funds)	285,202	225,076			+38,866	263,942
TOTAL, Mandatory Funding	632,189	570,693	0	0	-58,253	512,440

Mandatory Funding: FY 2018 and FY 2019 AML grants and UMWA payments reflect actual amounts paid. FY 2020 estimates are based on the Office of Management and Budget's economic assumptions as of November 7, 2018.

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Environmental Restoration

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ENVIRONMENTAL RESTORATION

Environmental Restoration Budget Request
(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	2020				Change From 2019 (+/-)
			Fixed Costs (+/-)	Internal Transfers (+/-)	Program Changes (+/-)	2020 Request	
Abandoned Mine Reclamation Fund	124,480	124,480	+26	-	-115,026	9,480	-115,000
State Program Evaluation	2,662	2,662	+11		-11	2,662	-
<i>FTE</i>	<i>20</i>	<i>19</i>			<i>-4</i>	<i>15</i>	<i>-4</i>
Federal Programs - Projects	1,548	1,548			-	1,548	-
Federal Programs - Operations	2,066	2,066	+4		-4	2,066	-
<i>FTE</i>	<i>5</i>	<i>5</i>			<i>-</i>	<i>5</i>	<i>-</i>
Program Development and Maintenance	3,204	3,204	+11		-11	3,204	-
<i>FTE</i>	<i>18</i>	<i>18</i>			<i>-3</i>	<i>15</i>	<i>-3</i>
AML Economic Development	115,000	115,000			-115,000	-	-115,000
Total, Environmental Restoration	124,480	124,480	+26	-	-115,026	9,480	-115,000
Total FTE	43	42			-7	35	-7

Note: 2018 FTE figures reflect actual usage.

Fixed Costs of \$26,000 in pay related items.

In addition to the discretionary appropriations above, OSMRE will also distribute mandatory funding for AML reclamation as outlined in the Permanent Appropriations Section.

Summary of 2020 Program Changes for Environmental Restoration

Request Component	(\$000)	FTE
AML Economic Development Pilot Program	-115,000	
Priority Alignment	-26	-7
TOTAL Program Changes	-115,026	-7

The Environmental Restoration program evaluates State and Tribal AML programs, ensures abatement of mining related hazards, and fosters partnerships to address acid mine drainage. In FY 2020, the Environmental Restoration program plans to remediate 14,249 acres of abandoned coal mine lands by eliminating health, safety, and environmental concerns. These remediation efforts will result in providing several thousand people with reduced exposure to safety risks from abandoned mine lands.

Justification of 2020 Program Changes

AML Economic Development (-\$115,000,000): No funding is requested for this program.

Priority Alignment (-\$26,000/-7 FTE): The FY 2020 budget maintains Environmental Restoration operational activities and aligns OSMRE’s existing manpower resources across business lines to optimize fulfillment of OSMRE’s statutory responsibilities and support of administration priorities.

OVERVIEW

As stewards of our Nation's natural and cultural resources, the Department of the Interior is entrusted with safeguarding these treasures for future generations. Environmental problems associated with abandoned mine sites, such as water pollution, open portals and pits, land stripped of natural vegetation, and refuse piles, degrade our natural resources and create public health and safety risks. Through the elimination of these problems, our land and water resources are improved so that other partners can make further investments in productive uses, such as agriculture, wildlife habitat, or development. Mine site reclamation not only improves our environment, but also safeguards people and property, and revitalizes communities by creating jobs.

OSMRE's Environmental Restoration business line funds operations and projects under the Abandoned Mine Land Program (AML). As part of its administration of the AML program, OSMRE evaluates State and Tribal AML programs, ensures abatement of high-priority coal mining-related hazards through the Federal Reclamation Program (where OSMRE has reclamation responsibility), and fosters partnerships aimed at addressing acid mine drainage and other water pollution problems.

Since 1977 under SMCRA's AML program, more than 12,000 equivalent acres per year of abandoned mine land problems have been addressed. SMCRA established priorities for AML problems ranging from extreme dangers to public health and safety to those associated with environmental related coal problems. Details on the types of problems that have been addressed can be found in the AML Reclamation Accomplishments section. OSMRE has developed a National inventory that contains information for over 21,000 problem areas associated with abandoned mine lands, mostly coal. A problem area is a uniquely defined geographical area that contains one or more abandoned mine land problems. AML problems are classified by priority. Priority 1 (protection of public health, safety, and property from *extreme danger* of adverse effects of coal mining practices), Priority 2 (protection of public health, safety, and property from adverse effects of coal mining practices) or Priority 3 (restoration of land and water resources and the environment previously degraded by adverse effects of coal mining practices). The cost of addressing the remaining Priority 1 and 2 coal-related sites is estimated at \$7.8 billion. In addition, there is an estimated \$2.7 billion of Priority 3 unfunded problems, for a total of \$10.5 billion of unfunded AML problems.

The authority to collect the mine reclamation fee and distribution of the fee was revised by the Tax Relief and Health Care Act of 2006, which included the Surface Mining Control and Reclamation Act Amendments of 2006 (Public Law 109-432). This 2006 Act extended the authority for fee collection through September 30, 2021, lowered the fee and the amount collected, and changed the way State and Tribal reclamation grants are funded, beginning in FY 2008. State and Tribal reclamation grants are permanent appropriations. The remaining activities funded under the discretionary appropriation for this business line include State Program Evaluation, Federal Reclamation Program Operations and Projects, and Program Development and Maintenance.

**ENVIRONMENTAL RESTORATION
ENCOMPASSES:**

State Program Evaluation
Federal Reclamation Program – Projects
Federal Reclamation Program – Operations
Program Development and Maintenance

Operational Processes (Program Activities): The mission goal of the Environmental Restoration business line is to provide a cleaner and safer environment for the American people by reclaiming and restoring land and water resources degraded by past coal mining. The program activities within this business line ensure the alleviation of adverse impacts to land and water resources caused by past mining operations.

Evaluation and oversight of the State and Tribal AML reclamation operations are coordinated by OSMRE through the State Program Evaluation program activity. Federal Reclamation Program Projects and Operations provide resources to address issues in States and Tribes without an approved AML program, as well as for the Watershed Cooperative Agreement Program, which supports cooperative conservation through local volunteer non-profit organizations. The Environmental Restoration business line also funds the Program Development and Maintenance Program activity, which provides policy direction, support, and services to States and Tribes, and ensures that State/Tribal programs are amended as needed.

The Environmental Restoration activities improve natural resources and reduce the risk to public health, safety, and general welfare by correcting problems caused by past mining. OSMRE has identified success indicators to show accomplishments leading to the overarching mission goal. These goals and measures are identified at the end of this business line section.

Actions Required to Achieve Annual Goals: In FY 2020 and beyond, OSMRE will continue to encourage partnership participation by working with States and Tribes through their reclamation agencies, and through private and grass-roots associations. In addition, OSMRE will increase efforts to leverage funding from other government and non-government organizations to address abandoned mine sites. This emphasis on partnership and leveraging of resources supports cooperative conservation efforts.

Resources, Skills, and Technology Needed: OSMRE will continue to need a diverse and multidisciplinary cadre of individuals with scientific and engineering skills. These staff members establish reclamation project design and construction criteria, either directly or in conjunction with contractors for Federal programs. The staff also review and monitor watershed cooperative agreements, and civil penalty and bond forfeiture reclamation projects. Program analysts, grant specialists, and other support personnel are needed to implement the State/Tribal grants program and to conduct program evaluations. Information technology personnel and contractors are needed to maintain and improve the enhanced-Abandoned Mine Land Inventory System (e-AMLIS). OSMRE maintains the system and network by which the States and Tribes manage their data.

The following section details, by program activity, the funding and FTE resources required to meet the annual performance measures. It also includes examples of the types of efforts used to evaluate programs, address emergency and high-priority issues and manage those projects, and provide reclamation support services to communities affected by coal mining issues.

2020 PROGRAM PERFORMANCE

Abandoned Mine Reclamation Fund

The Surface Mining Control and Reclamation Act (SMCRA) established the Abandoned Mine Reclamation Fund (AML Fund) to receive the AML fees and finance reclamation of coal AML sites. Before the 2006 SMCRA amendments, the reclamation grants to States and Tribes were funded through discretionary appropriations. These grants are now funded from permanent (mandatory) appropriations. A discussion of AML grant funding in support of eliminating the Nation's highest priority coal problems can be found under the Permanent Appropriations Section. The top of Table 1 identifies which States and Tribes have approved AML Programs and receive AML grants from permanent appropriations.

The FY 2020 AML Fund appropriation for Environmental Restoration will cover discretionary spending for State Program Evaluation, Federal Reclamation Program Operations, and AML Program Development and Maintenance.

Funding appropriated from the AML fund will also cover Federal expenses requested and outlined in subsequent business line chapters to cover Technology Development and Transfer, Financial Management, and Executive Direction and Administration. Watershed Cooperative Agreements and high-priority and emergency coal projects under the Federal Reclamation Program in States and Tribes without approved AML programs are proposed to be covered in FY 2020 by the remaining funds appropriated for these programs from prior years.

Addressing AML Emergencies

Emergencies are AML problems that occur suddenly and present a high probability of physical harm or threaten the health, safety, or general welfare of people. These problems must be addressed immediately. The process used for addressing emergencies that develop on AML sites, and allocating needed funds, is dependent on whether the State has an AML program. The 2006 Amendments created different sources of funding for addressing AML issues by allowing for the appropriation of both discretionary and mandatory grants. Prior to 2006, though a State would assume responsibility for addressing the AML issues within its borders, unless that State chose to address emergencies, OSMRE had been responsible for emergency projects. It was subsequently deemed more efficient and cost effective to combine responsibility for AML issues and AML emergencies issues under a single authority with a single source of funding. Thus, beginning in FY 2011, the responsibility for addressing emergency situations utilizing the mandatory grant funds was transferred to States and Tribes with AML programs.

For reference, Table 1 identifies State, Tribal and Federal responsibilities for the AML Program and Emergency Issues.

Table 1 – State, Tribal, and Federal Responsibility for the AML Program

	AML Program		Emergency Issues	
State and Tribal Responsibility	Alabama Alaska Arkansas Colorado Illinois Indiana Iowa Kansas Kentucky Louisiana Maryland Mississippi Missouri Montana New Mexico	North Dakota Ohio Oklahoma Pennsylvania Tennessee Texas Utah Virginia West Virginia Wyoming Crow Tribe Hopi Tribe Navajo Nation	Alabama Alaska Arkansas Colorado Illinois Indiana Iowa Kansas Kentucky Louisiana Maryland Mississippi Missouri Montana New Mexico	North Dakota Ohio Oklahoma Pennsylvania Tennessee Texas Utah Virginia West Virginia Wyoming Crow Tribe Hopi Tribe Navajo Nation
Federal Responsibility	California Georgia Idaho Massachusetts Michigan North Carolina	Oregon Rhode Island South Dakota Washington Tribes other than Crow, Hopi and Navajo*	California Georgia Idaho Massachusetts Michigan North Carolina	Oregon Rhode Island South Dakota Washington Tribes other than Crow, Hopi, and Navajo*

*OSMRE has conducted AML reclamation on Tribal lands across the Nation, most recently on Cherokee Tribal lands in Oklahoma.

1. State Program Evaluation

SMCRA requires OSMRE to monitor the progress and quality of each State and Tribal program to ensure their reclamation programs function effectively. This program area is an integral part of the State and Tribal funding. Evaluation of State and Tribal reclamation programs ensures efficient and effective use of program dollars for the intended purpose. The FY 2020 budget request includes \$2,662,000 and 15 FTE for State Program Evaluation activities.

OSMRE analyzes documents submitted by States and Tribes (e.g. grant applications, amendments, reports), and conducts periodic drawdown reviews and on-site evaluations of selected reclamation projects. OSMRE also provides the States and Tribes with expert technical assistance on reclamation projects. OSMRE, States, and Tribes hold conferences and forums to discuss reclamation issues, technology, and solutions to reclamation problems.

OSMRE utilizes topic-specific oversight reviews to monitor State and Tribal AML program operations. The current evaluation system does not require that the entire program be reviewed each year. Instead, the system requires the appropriate field office, in consultation with each State

or Tribe, to develop a performance agreement which addresses the areas to be reviewed, and establishes applicable performance measures. Since much of topic-specific oversight is trend analysis, and because the interaction between the programs and OSMRE is continual, the performance agreements can be for periods longer than one year. However, OSMRE reviews them each year to determine the progress being made.

These agreements first address the overriding goal of the AML program, which is successful reclamation. They recognize that if the State or Tribe is permanently reclaiming abandoned mine sites by abating hazards, reducing or mitigating adverse effects of past mining, and restoring adversely affected lands and water to beneficial use, then it is conducting an effective program.

OSMRE encourages States and Tribes to maintain ongoing programs for post-project monitoring to assure that completed reclamation projects receive adequate maintenance until reclaimed lands are stable, and to ensure the effectiveness of reclamation designs. OSMRE evaluations of post-construction monitoring ensure implementation of these types of State monitoring plans.

An example is the Wolf Branch Middle School emergency project that successfully stopped ground movements that were causing extensive building damages. Four-hundred grade school children were relocated to a nearby school, while the IL AML conducted a mine stabilization backfilling project. OSMRE staff provided technical advice in designing a sulfate resistant cement grout that would resist the deleterious effect of acid mine waters within the mine; and grouting technique and analysis of ground measurement data so as to determine and demonstrate project success. The Illinois AML will be working collaboratively with the school district in identifying and providing funding that will remove structurally deficient building elements. The monitoring of ground movements associated with coal mine subsidence is a fundamental means Illinois employs to ensure public safety. Such monitoring commonly occurs for more than 10 years for each project site. In this instance the data will be used by the school district in making a decision to invest \$16.5 million dollars in rebuilding the school so as to bring the 400 children back to their local school by 2020 and more importantly, to be safely educated.

This AML monitoring trend can also be recognized with the efforts put forth by the Iowa AML program. When an AML project is completed in Iowa, the State Program enacts a five year warranty and observation period to ensure that the reclamation is stable and that soil and water conditions show improvement from pre-reclamation conditions. This observation period has proven effective in addressing acid soil “hot spots” and partial revegetation that often appears on completed AML sites. This monitoring and assistance greatly assists landowners in keeping the freshly reclaimed fragile sites from reverting back to sterile unvegetated dead zones.

2. Federal Reclamation Program

OSMRE addresses environmental hazards on a priority basis when an emergency occurs in States or on Tribal lands without AML programs. It also administers projects funded by Federal civil penalties collected from operators and projects funded from bonds forfeited by operators of Federally permitted sites; monitors watershed cooperative agreement projects; and provides technical assistance to States and Tribes specific to the above projects.

a. Federal Reclamation Projects

The request includes \$1,548,000 for Watershed Cooperative Agreement Program (WCAP) projects. Additionally, OSMRE will continue to administer Federal reclamation projects in FY 2020 utilizing civil penalty funding collected and emergency and high priority project funding provided in prior-year appropriations, as required.

(1) Watershed Cooperative Agreement Projects

The OSMRE designed the Watershed Cooperative Agreement Program (WCAP) to assist affected coalfield citizens. This program, implemented in 1999, makes funds available directly to not-for-profit organizations, especially small local watershed organizations. These community-based organizations undertake local projects to clean streams affected by Acid Mine Drainage (AMD). The watershed organizations that apply for the funding, normally receive up to \$100,000 for each reclamation project. WCAP funds are primarily used for project construction. Agencies are required to have other partners contributing either funding or in-kind services, as cleaning up the AMD pollution comes at a high cost and cannot be borne by any single government agency or citizen group. OSMRE's WCAP funding results in improvements of land and water resources and creates beneficial uses such as fish and wildlife habitat and recreational areas. Communities are strengthened and capacity increased due to the awareness, knowledge, and outreach that this program fosters.

A companion project, the Acid Drainage Technology Initiative (ADTI), is under the Technology Development and Transfer business line and contributes to the activities to abate AMD. See that business line section for further details on ADTI efforts.

The following are examples of projects that are funded under the WCAP:

Milk Run Restoration: Milk Run is a one mile tributary to Montour Run, a significant recreational stream in Allegheny County, within the Pittsburgh, PA metropolitan area. Milk Run is surrounded by residential neighborhoods in close proximity to the stream corridor. Montour Run Trail is a developed hiking/biking trail which is part of a regional trail network. Milk Run is contaminated by an abandoned underground mine discharge of water with a low Ph and high dissolved aluminum, which eliminates biological life in the stream, and contributes to the degradation of Montour Run downstream. The applicant, Stream Restoration Incorporated, proposes to construct a passive treatment system in the headwaters of Milk Run, which will remove the dissolved aluminum and raise the pH level, such that the stream can be restored to a viable recreational fishery. Of note is that Range Resources will contribute \$758,089 for design and construction, and \$190,600 to establish an operation and maintenance trust fund. These funds will satisfy a penalty assessment from the Pennsylvania Department of Environmental Protection, for violations associated with its natural gas operations. OSMRE will contribute \$180,000 in WCAP funding.

Kentucky Hollow Stream Restoration: In its continuing effort to support abandoned mine reclamation within the boundary of the Pittsburgh Botanic Garden, OSMRE awarded a second WCAP agreement, in the amount of \$100,000. This award, in conjunction with

\$399,416 contributed by the Pennsylvania Department of Environmental Protection and others, is being used to construct a passive treatment system to clean up a discharge from an abandoned underground mine with low pH and high dissolved aluminum. Treatment of this water will restore 1.8 miles of stream to a viable biologic condition, thus enhancing the natural experience of visitors to the Garden, as they use the extensive trail system along the streams and throughout the 432 acre natural, wooded facility.

Behrle North Project: The 13.5 acre Behrle North Reclamation Project is located approximately three miles west of the City of Eldon, Iowa in Wapello County. The site design re-establishes pre-mining drainage patterns and reconnects drainages with a main channel established along the center of the site. Water entering the site will filter through a constructed wetland before exiting the site. According to the project design, construction will abate all the hazardous abandoned mine land features and will clear, regrade and re-vegetate 12.7 acres utilizing a terrace and tile design, and incorporate a 0.9 acre wetland. The applicant requested \$100,000 from the OSMRE WCAP to be used with \$291,000 in project partner funding.

Behrle South Project: The 21.7 acre Behrle South Reclamation Project is located approximately three miles west of the City of Eldon, Iowa in Wapello County. The site design re-establishes pre-mining drainage patterns. Water entering the site will filter through two constructed wetlands before exiting the site. According to the project design, construction will abate all the hazardous abandoned mine land features and will clear, regrade and re-vegetate 19.5 acres utilizing a terrace and tile design, and incorporate 2.2 acres of wetlands. The projects will use \$100,000 from OSMRE's WCAP to be used with \$451,000 in project partner funding.

Blom Project: The 29 acre Blom Reclamation Project is located approximately three miles west of the City of Oskaloosa, Iowa in Mahaska County. The site design re-establishes pre-mining drainage patterns. Water entering the site will filter through four constructed and enhanced wetlands before exiting the site. According to the project design, construction will abate all the hazardous abandoned mine land features and will clear, re-grade and re-vegetate approximately 29 acres utilizing a terrace and tile design, and incorporate 3.01 acres of wetlands. The project requested \$100,000 from OSMRE's WCAP to be used with \$643,000 in project partner funding.

Northup North Project: The 34 acre Northup North Reclamation Project is located approximately 3.6 miles southwest of the City of Eldon, Iowa in Wapello County. The site design re-establishes pre-mining drainage patterns including two small drainage ways and a wetland. According to the project design, construction will abate all the hazardous abandoned mine land features. The construction contract will clear, re-grade and re-vegetate approximately 34 acres utilizing a terrace and tile design, and incorporate 1.8 acres of wetland using \$100,000 from OSMRE's WCAP combined with \$732,000 in project partner funding.

(2) Civil Penalty Reclamation Projects

SMCRA authorizes Federal civil penalties collected under Section 518 of the Act to be used for reclaiming lands mined and abandoned after passage of SMCRA on August 3, 1977. These funds are derived from monetary civil penalties assessed by OSMRE nationwide, on active coal mining operations. The funds are also available for reclamation of bond forfeiture sites. These funds are divided among projects proposed by both State and Federal regulatory authorities and used for project costs only.

(3) Federal Emergency Projects

Federal Emergency Projects provides immediate relief from abandoned mine hazards in States and on Indian lands without an approved AML Program. Emergencies in States covered by the Federal Reclamation Program usually involve subsidence, vertical mine shaft collapse or sudden exposure of mine openings.

The most common emergencies in the States covered by Federal Reclamation Programs are subsidence events caused by the caving in of old underground mines. Subsidence events can impact man-made structures on the surface and may be life threatening when they occur in populated areas. The second most common type of emergency event in these States is vertical mine shaft collapse. This may result in vertical holes that are hundreds of feet deep and are usually the result of shafts being improperly filled or an inadequate cap that was placed over the shaft at the time of abandonment. Often at the time of closure the shafts were either filled with on-site material or wooden or concrete caps were placed over them to prevent entry. Over time the fill material settles or the cap deteriorates to a point where it can no longer sustain the weight of the material placed over it. Other AML problems, including mine entries, hazardous/explosive gases, mine and refuse fires, dangerous high walls, landslides and mine pool blowouts, may also present life-threatening conditions.

When notified of a possible emergency situation, OSMRE personnel will review available information and visit the site as necessary, usually within 48 hours or less, and perform a technical investigation. Should OSMRE determine an emergency exists, OSMRE conducts remedial action as quickly as possible to abate the emergency situation. This does not always fully reclaim the site, but does address the emergency situation. The remaining reclamation will be completed, as appropriate, after the emergency has been addressed.

During FY 2018, there were no new emergency projects declared under the Federal Reclamation Program within the Appalachian and Mid-Continent Regions. The Western Region, however, addressed two AML emergencies in Washington State during FY 2018. The first emergency project was a subsidence feature that occurred in a residential driveway in Issaquah, WA. OSMRE expended \$171,851 for architecture and engineering and construction services to remediate the subsidence feature. Another subsidence feature occurred on a golf course in Newcastle, WA, which OSMRE expended \$63,547 to reclaim.

During FY 2019, the Western Region will complete three emergency projects in WA. Two of the projects are located in Renton, WA near an elementary school. The third project is a large subsidence in Ravensdale, WA.

OSMRE plans to reserve the carryover funding that is expected to remain available for Federal Reclamation projects in FY 2020 for Federal reclamation emergencies.

b. Program Staff (Operations)

Federal Reclamation Program Operations funding enables OSMRE staff to administer watershed cooperative agreements and address Federal emergencies, high priority projects, and civil penalty projects. For emergency projects, OSMRE begins the initial investigation making threshold determinations relating to each incident, including, whether the incident is: (1) suddenly occurring, (2) life threatening, and, (3) related to a coal mine abandoned prior to August 3, 1977. With emergency projects, time is of the essence. In some instances, abatement activities begin within hours of OSMRE's initial investigation. For Federal high priority projects, the process is similar, but begins with the determination of whether the condition is related to an abandoned coal mine, and if so, a determination of the priority for reclamation.

Once the determination is made that the site is eligible for funding as an emergency or high priority project, the Federal Reclamation Program staff obtains approval for project funding and develops the abatement plan. This includes:

- Compliance with the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA);
- Obtaining the right of entry for access;
- Developing engineering plans and specifications needed for abatement;
- Preparing and mailing bid packages to potential construction contractors;
- Conducting pre-bid and pre-construction conferences;
- Awarding contracts;
- Coordinating, managing and inspecting all aspects of the ongoing construction; and
- Reviewing, approving, and paying invoices.

OSMRE staff will address emergencies and high priority projects in non-program States and Tribes as described earlier, as well as provide technical assistance to States and Tribes with approved AML Programs. OSMRE will continue to provide specialized expertise in various AML problems, including subsidence, mine fires, mine gases, and landslides to States that request assistance. OSMRE staff will also administer projects funded by Federal civil penalties collected from operators and monitor watershed cooperative agreement projects under this activity. The request includes \$2,066,000 and 5 FTE for Federal Reclamation Program operations.

3. Program Development and Maintenance

The Program Development and Maintenance activity is an integral part of the State and Tribal funding program. The FY 2020 budget proposes \$3,204,000 in funding, and provides for 15 FTE for reclamation program management and programmatic guidance to States and Tribes. OSMRE has an ongoing process of reviewing existing policies in the Environmental Restoration business line. Whenever necessary, policies are revised to meet the existing need of the programs and to keep abreast of changes to the law.

OSMRE assists States and Tribes to build on their reclamation successes by providing ongoing technical assistance on reclamation practices and by continually enhancing the primacy grants process.

An important part of OSMRE's role in State and Tribal AML program operations is the review and approval of State/Tribal AML projects. All AML projects are considered "Major Federal Actions" under the National Environmental Policy Act (NEPA). Because of this, every project must be evaluated by OSMRE personnel under NEPA regulations prior to approval. While most States and Tribes conduct some or all of the consultations and document preparation prior to submission of projects for approval, OSMRE personnel must conduct required analyses of these documents, assure that requirements are met, and approve either a categorical exclusion determination, a finding of no significant impacts, or an environmental impact statement – record of decision, for each project. These reviews require consultations under various other Federal laws including the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the Clean Water Act.

OSMRE emphasizes State, Tribal, and Federal partnerships in the AML program. OSMRE works directly with the States and Tribes, through State and Tribal associations and with other Federal agencies, to coordinate and enhance reclamation. Such relationships foster coordination essential to land reclamation. New policy, and changes to existing policy, are circulated to the States and Tribes for input prior to being finalized enabling OSMRE to make programmatic decisions in a collegial manner. Examples of activities include working with States and Tribes to develop improved strategic plan measurements for the AML program; holding meetings/workshops with the State/Tribal grantees to provide employee training and to keep them abreast of policies and procedures; and soliciting input from States/Tribes and interested parties on AML issues to make informed decisions.

a. AML Inventory

OSMRE manages a national enhanced Abandoned Mine Land Inventory System (e-AMLIS), which serves as a planning and evaluation tool for the States, Tribes, OSMRE, and the public. In accordance with the requirements of SMCRA, e-AMLIS contains data for known eligible Priority 1 and 2, pre-SMCRA coal reclamation problems. As required by SMCRA, OSMRE personnel review and approve or disapprove each new State/Tribe submitted coal related problem area, or revision to an existing problem area, to maintain consistency and ensure compliance with Federal law and regulations. Each problem is classified as unfunded, funded (in progress) or completed. The e-AMLIS also contains information regarding funded and completed Priority 3 coal and post-SMCRA coal problems, as well as information on completed non-coal problems. Coal projects selected for funding by States or Tribes are contained in e-AMLIS prior to funding, except for those emergency sites that may be entered after completion due to the immediate need for reclamation.

The States and Tribes use the inventory to assist them in planning, to make funding decisions and to report program accomplishments. OSMRE uses e-AMLIS to record and report AML program accomplishments under the Government Performance and Results Act (GPRA). States, Tribes, and

OSMRE have access to enter and modify information in e-AMLIS electronically.

e-AMLIS is web based, enabling the public to access this information readily via OSMRE's website. e-AMLIS users can search for information about individual Problem Areas or query the Inventory. The results of a query can be shown in preformatted reports, or on a map, and can be downloaded in various formats.

b. Grants Management

OSMRE supports and participates in Grants.gov, the government-wide electronic grants announcement and application system. OSMRE uses the DOI Financial and Business Management System (FBMS) financial assistance module for internal processing of all grant and cooperative agreement obligation, deobligation and close-out transactions.

OSMRE has a decentralized grants management organization, with a small policy staff at headquarters. Regional and field offices perform day-to-day grants and program management. Accounting and reporting occurs under the Financial Management business line activity. OSMRE and the State/Tribal grantees cooperate to maximize the use of available funding and operate an effective program. Grantees provide input by participating on joint teams and by reviewing and commenting on changes in the program. In addition, OSMRE periodically holds meetings/workshops with the State/Tribal grantees to provide training for grantees and to keep them abreast of policies and procedures. This cooperative working relationship contributes to streamlined application and awards processes, faster obligation of Federal funds, innovative program monitoring, and less paperwork-intensive reporting and close-out of grants.

c. State Program Amendments

OSMRE assists States and Tribes with development, administration, implementation, and maintenance of their approved AML programs. Changes to State programs must be reflected in program amendments for OSMRE approval. OSMRE evaluates State-initiated program changes (statutory, regulatory, or changes in the program's provisions, scope, or objectives), as well as OSMRE required modifications that are a result of legal interpretations or changes to SMCRA and Federal regulations. In its evaluation, OSMRE solicits public comments on State program amendments through proposed rules published in the Federal Register, holds public meetings, maintains the administrative record, approves or does not approve proposed State program amendments, and publishes the decisions as final rules in the Federal Register.

ENVIRONMENTAL RESTORATION

2019 Planned Program Performance

In 2019, the planned activities in the Environmental Restoration program activity include:

- Continue partnerships with watershed groups and related reclamation by awarding watershed cooperative agreements to interested groups as funds are available.
- Respond to Federal AML emergencies in non-program States.
- Provide AML grants to States and Tribes.
- Monitor watershed cooperative agreement projects funded before or during FY 2018, and provide opportunities, contingent on availability of funding, to fund other projects during FY 2019.
- Continue to use reclamation funds to eliminate hazards resulting from past mining activities.
- Achieve the goals for performance measures identified on the Performance Overview Table for this business line.
- Support the Underground Mine Map Initiative (UMMI) to minimize future subsidence risk by making information available on the location of mined out areas using maps and surface overlays that can provide this critical information to local governments to account for risks. This initiative has historically been accomplished on a National level through competitive cooperative agreements awarded by OSMRE. Since 2005, the Underground Mine Mapping Initiative (UGMMI) has completed 61 projects totaling over \$3 million in Federal assistance and over \$1.6 million in matching State funds.
- Provide guidance and assistance in establishing benchmark standards in mine map preservation, including digital imaging and rectification, and creating and serving mine maps for safety, State and Tribal AML, local government, and public viewing and use.
- Continue monitoring the AML Economic Development Pilot Program projects funded in prior-year appropriations (FY 2016-2018) and complete an updated report on project implementation.
- Complete an AML P1 grading project on Fort Peck Reservation Land to remediate multiple subsidence features from historic coal mining.
- Work to implement Office of the Inspector General recommendations to improve the oversight and aspects of the AML Program.

2018 Program Accomplishments

In 2018, the major accomplishments in the Environmental Restoration program activity include:

- Managed the \$291 million in mandatory AML grants provided to 25 States and 3 Tribes.
- Provided \$115 million in AML Economic Development Pilot Program sponsored grants to 6 States and 3 Tribes.
- Improved land and water health by reclaiming, or mitigating, the equivalent of 16,138 acres of land from the effects of natural resource degradation from past mining.
- Improved underground discharges of mine water, eliminating uncontrolled discharges, by employing horizontal boring techniques.
- Leveraged \$3,171,502 in partner funds for ten new watershed cooperative agreements in three States (Ohio, Pennsylvania, and West Virginia). In Pennsylvania, six new WCAP projects were funded totaling \$449,455. Partner contributions to these projects totaled \$1.7 million. Ohio received \$200,000 in WCAP assistance, which was combined with \$984,397 in partner contributions.
- Used civil penalty reclamation funds to complete the reclamation on three sites in Tennessee that were abandoned and left in an environmentally degraded State. Two projects were funded in Pennsylvania and one in Maryland.
- Awarded contract to stabilize five mine shafts in Michigan that are a threat to the local populations. Work began in mid-August 2018 and is expected to be completed in the spring of 2019. The work involves exploring and filling voids within the mine shafts to minimize the threat of sudden collapse.
- Completed the reclamation of one mine site abandoned that was left unreclaimed by the permittee in Tennessee utilizing a combination of performance bonds and civil penalty monies.
- The Federal Reclamation Program reclaimed two AML emergencies in Washington and abated numerous Priority 1 hazards on the Fort Peck Reservation in northeast Montana and nine Priority 2 hazards in Michigan.
- OSMRE received the Department's Environmental Achievement Award for its AMD Treatment efforts at the Flight 93 National Memorial. OSMRE partnered with the National Park Service, State and local authorities and watershed groups to design and fund an AMD treatment system that not only treats mine impacted water at the site but does so in a manner that maintains and protects the dignity of the Memorial.
- OSMRE received honorable mention in the Department of Interior Environmental Achievement Awards for its collaboration with the Pittsburgh Botanic Garden. OSMRE provided a Watershed Cooperative Agreement Program grant, and technical assistance to

help the Garden remediate acid mine drainage (AMD) from an abandoned underground mine. The work also restored a stream that was considered dead due to the AMD; it has improved to the point that it is now supporting native fish.

TAB

Environmental Protection

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ENVIRONMENTAL PROTECTION**Environmental Protection Budget Request***(Dollars in Thousands)*

	2018 Actual	2019 CR Baseline	2020				Change from 2019 (+/-)
			Fixed Costs (+/-)	Internal Transfers (+/-)	Program Changes (+/-)	2020 Request	
Regulation and Technology	88,602	88,562	+122	-	-20,930	67,754	-20,808
State and Tribal Funding	68,590	68,590			-24,687	43,903	-24,687
<i>FTE</i>							
State Program Evaluation	8,140	8,140	+59		-119	8,080	-60
<i>FTE</i>	78	81			-	81	-
Federal and Indian Lands Program	6,054	6,014	+34		+1,693	7,741	+1,727
Offsetting Collections		[+40]				[+40]	
<i>FTE</i>	44	46			-	46	-
Federal Lands	1,414	1,414	+5		+17	1,436	+22
<i>FTE</i>	9	10			-	10	-
Program Development and Maintenance	4,404	4,404	+24		+2,166	6,594	+2,190
<i>FTE</i>	19	18			+17	35	+17
Total, Environmental Protection	88,602	88,562	+122	-	-20,930	67,754	-20,808
Total FTE	150	155			+17	172	+17

Note: 2018 FTE figures reflect actual usage.

FY 2018 Actuals include \$40,000 in additional appropriated funds for permitting activities. OSMRE did not collect any permit fees in FY 2018.

Fixed Costs of \$122,000 in pay related items.

Summary of 2020 Program Changes for Environmental Protection

Request Component	(\$000)	FTE
State and Tribal Funding	-24,687	
Improve Mine Plan Review Process	+3,757	+17
TOTAL Program Changes	-20,930	+17

Under the Environmental Protection program, OSMRE works with coal-producing States to ensure the environment is protected while there is active surface mining operations. In FY 2020, 89% of active coal mining sites will be free of off-site impacts, and 41% of past mining sites will be reclaimed to post-mining beneficial use. On Indian Lands, OSMRE is the regulatory authority and has the responsibility to protect Tribal resources. OSMRE works with the Tribes to ensure the protection of their resources while implementing SMCRA. OSMRE funds Tribal programs as they pursue SMCRA primacy.

Justification of 2020 Program Changes

State and Tribal Funding (-\$24,687,000): The Federal Government provides funding to States and Tribes to regulate the coal industry. This request supports \$43,903,000 in funding for this activity. Stable regulatory programs promote competition, allow for responsible development and protect the safety and welfare of citizens and the environment. OSMRE's statutory role is to promote and assist its partner States in establishing a stable regulatory environment for coal mining. The proposed level of regulatory grant funding, together with expected carryover funding from FY 2019, provides for the efficient and effective operations of primacy programs at a level consistent with the anticipated obligations of State and Tribal regulatory programs to account for the Nation's demand for coal mine permitting and production.

Improve Mine Plan Review Processes (+\$3,757,000/+17 FTE): The process for reviewing and approving the permitting of coal operations is time-consuming and resource intensive. The proposed level of funding will enable OSMRE to align its staff and fiscal resources across activities to better focus on developing initiatives that will streamline the NEPA process, enhance and accelerate the permitting process, and ensure that coal mine surface activities are operated in a manner that protects citizens and the environment during mining and that the land is restored to beneficial use following mining.

OVERVIEW

The Environmental Protection business line provides resources to administer regulatory programs for 24 primacy States, as well as for the Federal and Indian Lands Programs which include two States and four Tribes where OSMRE is the regulatory authority. These programs address the protection of the public and environment from the adverse effects of current mining, and reclamation of land at the conclusion of mining. At the end of FY 2018, the permitted area of coal mining operations encompassed 2.6 million acres Nation-wide. During active mining, the potential risks from safety and environmental hazards exist both within and outside the permitted site. Effective implementation and enforcement of SMCRA minimizes those risks.

OSMRE administers a Federal and an Indian Lands Program in the States of Washington and Tennessee and on Tribal lands of the Navajo Nation, the Hopi Tribe, the Ute Mountain Ute Tribe, and the Crow Tribe.

<p style="text-align: center;">ENVIRONMENTAL PROTECTION ENCOMPASSES:</p> <p>State and Tribal Funding</p> <ul style="list-style-type: none">• State Grants• Tribal Regulatory Development Grants <p>State Program Evaluation</p> <p>Federal and Indian Lands Programs</p> <p>Federal Lands</p> <p>Program Development and Maintenance</p>
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Operational Processes (Program Activities): The program activities within this business line ensure the environment is protected during surface coal mining operations, and that coal operators adequately reclaim disturbed land after mining is completed.

This business line also provides for OSMRE's costs to ensure that State programs meet Federal regulatory requirements. The State and Tribal Funding activity includes grants to States and Tribes to regulate coal operations on lands within their borders.

This activity includes grants to Tribes to develop regulatory programs and to assist OSMRE in the regulation of surface coal mining and reclamation operations on Indian lands. Additionally, for primacy States with Federal lands within their borders, cooperative agreements formalize States' eligibility to receive additional grant funding to cover their full costs to regulate coal operations on those Federal lands within their borders.

The State Program Evaluation program activity funds OSMRE's evaluation and oversight of State programs. The Federal and Indian Lands Programs activity funds OSMRE regulatory activities to ensure SMCRA compliance in States without their own regulatory program and on Tribal lands. The Federal Lands program activity funds OSMRE's responsibilities and activities in preparing Mining Plan Decision Documents for leased Federal coal, as well as any other activities on Federal lands not covered by the primacy States with cooperative agreements.

OSMRE's Environmental Protection mission goal supports responsible coal extraction and addresses the protection of public health, safety, and general welfare from the adverse effects of current surface coal mining and reclamation operations since the enactment of SMCRA in 1977. The performance measures for this goal are the protection of the environment and public from off-

site impacts resulting from surface coal mining operations and successful reclamation on lands affected by surface coal mining operations. This goal is accomplished through the cooperative efforts of the OSMRE and State regulatory offices. The following measures are used by OSMRE as indicators of annual performance.

Percent of coal mining sites free of off-site impacts: Impacts are effects resulting from surface coal mining activities such as blasting or water runoff that affect people, land, water, or structures outside the permitted area of mining operations in violation of the existing regulations. The severity of the impacts is rated as minor, moderate, or major. Due to the nature of mining, it is inevitable that some impacts will occur, though they should be minimized, and offsite impacts prevented, when feasible.

Acres released from Phase I, and II bond release: This performance measure is the number of acres of land that have been approved to complete a phase of reclamation every year by active coal mine operators, and is dependent on the operator to file an application for each release phase. This is documented and measured through a series of bond releases. The bonds are required to assure that funds are available for reclamation in case the operator fails to reclaim the mined land.

Acres released from Phase III bond release: This performance measure shows the number of acres that have been reclaimed and approved for final release meeting the performance standards for current mining operations.

Percent of mined acreage reclaimed: This performance measure has been represented as a ratio of the cumulative number of acres released from Phase I, Phase II, and Phase III and the cumulative number of mined acres.

Percent of mined acres reclaimed can also be expressed as an annual measure for each fiscal year. This is calculated using acres reclaimed for final release (Phase III) during the fiscal year and current mined acres at the end of the fiscal year.

Actions Required to Achieve Annual Goals: OSMRE continues its outreach to interested parties to address concerns related to impacts from surface coal mining operations, acid mine drainage, other water pollution, and slurry and other impoundments. OSMRE also continues to evaluate its rules, advance coal re-mining efforts, encourage reforestation, ensure mines are properly bonded; and ensure that contemporaneous reclamation is occurring. The timeliness of reclamation must be accurately measured to ensure that contemporaneous reclamation is occurring. A measure for contemporaneous reclamation during the fiscal year is captured through an annual measure for mined acreage reclaimed.

In addition, OSMRE will continue to practice cooperative conservation through working in partnership with States and Tribes to carry out the mission of the SMCRA. OSMRE has refocused its actions on mission accomplishment while fostering better working relationships with States.

Resources, Skills, and Technology Needed: Program analysts, reclamation specialists, grant specialists, and various support personnel are needed to implement the State regulatory programs and to conduct program evaluations. OSMRE and the primacy States also will continue to need a diverse and multidisciplinary cadre of personnel skilled in scientific and engineering areas to review mine permits, determine whether performance bond coverage and amounts are sufficient to ensure reclamation, conduct mine site inspections, and implement enforcement actions when necessary. Computer systems personnel are needed to help maintain various data systems, such as the National Inspection and Enforcement Tracking System that contains data from OSMRE's oversight and regulatory program inspections.

For FY 2020, the President's budget requests \$43.9 million to fund up to 50 percent of the costs for 24 primacy State regulatory programs, and up to 100 percent of the costs of regulating mining on Federal lands within their borders for 14 of the primacy States through cooperative agreements. This amount will also provide 100 percent of the regulatory program development costs for three Tribes.

The FY 2020 budget request includes \$8.0 million to improve implementation of existing laws and to support States and Tribes. The request also includes \$7.7 million to fund regulatory programs in non-primacy States, including Tennessee and Washington, and on Indian Lands. Also included in the FY 2020 budget request is \$1.4 million for OSMRE to carry out mine plan reviews for Federal lands, and \$6.6 million for program development and maintenance to streamline mine plan decision processes and ensure that regulatory standards adequately reflect changes in technologies and program needs. Appropriation language is requested to supplement this appropriation with \$40,000, which will be offset with collections for new permit application fees in the Federal and Indian Lands Programs.

The following section details, by program activity, the funding and FTE resources required to meet the annual performance measures. It also includes examples of cooperative work between OSMRE, States, and Tribes to regulate coal-mining activities that will continue in FY 2020 and support this budget request.

2019 PROGRAM PERFORMANCE

1. State and Tribal Funding

The \$43,903,000 requested for FY 2020 for State and Tribal funding recognizes the need to support the State regulatory programs and Tribal programs pursuing primacy. This request fully funds the projected 2020 activity requirements, based on a downward trend in State grant execution and an historical return of unexecuted appropriated funds at the end of the grant cycle each year. OSMRE will also continue to support State regulatory grant requests by re-distributing the available prior year funds as needed for this activity. This activity supports responsible coal extraction using technology to minimize the impact of operations on people, structures, and the environment.

a. State Grants

The principal means of providing environmental protection within the framework of SMCRA is through "primacy" States that receive Federal grant funding. Currently, 24 States have achieved primacy and serve as regulatory authorities in the implementation of SMCRA. Primacy States have the most direct and critical responsibilities for conducting regulatory operations to minimize the impact of coal extraction operations on people and the environment. The States have the capabilities and knowledge to regulate the lands within their borders. Providing up to a 50 percent match of State funding in Federal grants to primacy States encourages States to take this responsibility, while ensuring that regulations are consistent across the Nation.

Cooperative agreements between OSMRE and primacy States with Federal lands allow those States to receive grant funding to cover their costs to review permit applications and issue permits, and conduct the required inspections of regulated activities on Federal lands. The additional grant funding provides for uniform enforcement of State program requirements at all facilities within the State and reduces both direct Federal program costs and Federal staff requirements. SMCRA section 705 (c) sets the amount that a State may receive through a cooperative agreement to an amount approximately equal to the amount the Federal Government would have expended to do the same work. The regulations further require no grant may exceed the actual costs to the State for this activity. Currently, 14 States have entered into cooperative agreements with OSMRE to regulate surface coal mining and reclamation operations on Federal lands: Alabama, Colorado, Illinois, Indiana, Kentucky, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Utah, Virginia, West Virginia, and Wyoming.

Activities that State regulatory authorities conduct with Federal grant and matching State funding include: permit review and issuance, including the use of the Applicant Violator System to ensure that permits will not be issued to operators with outstanding violations; inspection and enforcement; designation of lands unsuitable for mining, and; ensuring timely reclamation after mining. In addition, individual States may conduct special activities to address specific needs. These activities may include upgrading permitting programs, computerizing systems to improve review of pending permits, and drafting regulations that respond to changes in Federal rules.

State regulatory authorities inspect all active and inactive sites, facilities, and areas that support coal mining and reclamation within their State for compliance with all program requirements. Federal regulations require all active inspectable units under the permanent program to have four

complete and eight partial inspections per year. Four complete inspections are required annually for all inactive units. Inspections conducted by primacy States in any given year depend, in part, on the number of active and inactive permits in each State. The primacy States conducted 62,141 inspections in FY 2018 (see Table 2).

b. Tribal Regulatory Development and Regulatory Program Grants

As allowed by the Energy Policy Act of 1992 and Section 710 (i) of SMCRA, OSMRE provides grants to the Crow and Hopi Tribes and the Navajo Nation to assist them in developing regulations and programs for regulating surface coal mining and reclamation operations on Indian lands. The grant amounts are based on each Tribe's anticipated workload to develop a Tribal program (including Tribal laws, regulations and policies), to assist OSMRE with surface coal mine inspections and enforcement (including permitting activities, mine plan review and bond release), and to sponsor employment training and education concerning mining and mineral resources. These grants fund 100 percent of the Tribal primacy development activities.

The Surface Mining Control and Reclamation Act Amendments of 2006 provides for Indian Tribes to apply for, and obtain approval of, a Tribal program regulating in whole, or in part, surface coal mining and reclamation operations on reservation land under the jurisdiction of the Indian Tribe. The legislation also provides for 100 percent funding of the costs of developing, administering, and enforcing an approved Tribal program. Discussions on the submission of applications for Tribal primacy began in 2007. Informal review of the Navajo Nation's Tribal primacy application is substantially complete, and OSMRE is unsure of when a formal application for Tribal primacy may be submitted by the Navajo Nation. Two previous attempts to gain approval by the Navajo Nation's Tribal Council have failed to get the required two-thirds vote. The Crow Tribe and the Hopi Tribe continue to pursue Tribal primacy, including the development of a statute and regulations, but at this time an anticipated date for submission of a formal application for Tribal primacy has not been determined.

2. State Program Evaluation

State Program Evaluation activities serve two purposes: they determine whether States are effectively implementing their regulatory programs as approved, and they provide documentation to the public of the work that OSMRE and the States are doing. The \$8,080,000 requested for FY 2020 will fund 81 FTE to carry out these activities.

a. Oversight Policy and Procedures

OSMRE assumes a monitoring role following approval of a State or Tribal SMCRA regulatory program. That role includes both programmatic evaluations and inspections of individual mine sites to determine whether States with primacy are properly administering, implementing, maintaining, and enforcing their regulatory programs. Detailed guidance is provided and available on OSMRE's website.

As part of the process, a Performance Agreement is developed for each State annually. OSMRE solicits input from all its stakeholders, which include the public, State agencies, Federal agencies, other stakeholders, and the coal industry, for relevant issues to review in each State. The

Performance Agreement is a comprehensive plan that outlines the responsibilities and activities of both the State and OSMRE. It provides details about specific program evaluation goals for each State and the plans to achieve those goals, the types and number of inspections OSMRE plans to conduct, technical or programmatic assistance that OSMRE may render to the State, and the method to resolve any identified problems, both new problems and any issues remaining from previous years.

b. Oversight Inspections

SMCRA requires the Secretary to conduct mine inspections to evaluate the administration of State programs. Inspections are conducted on a range of sites - from those actively producing coal to forfeited bond sites awaiting reclamation. Most OSMRE oversight inspections focus on areas in which there is a high level of activity or public concern or where systemic problems have been observed. In States with 1,000 or more inspectable units, OSMRE also conducts inspections of a random sample of those units to provide an objective evaluation of the effectiveness of the State program in ensuring compliance with program requirements. The vast majority of oversight inspections are joint inspections, in which the State or Tribal inspector accompanies the OSMRE inspector. However, Directive REG-8 provides for independent oversight inspections to validate and enhance the credibility of both the regulatory program and the oversight process. In addition, at least 4 of the 12 (or 1/3) of the inspections conducted will be complete inspections. Complete inspections allow for a comprehensive, complete review of the entire mine site which furthers OSMRE's ability to effectively evaluate and monitor a State's or Tribe's regulatory program.

In FY 2018, OSMRE conducted 1,287 oversight inspections in primacy States (see Table 2). OSMRE intends to perform oversight inspections in FY 2019 and FY 2020 to assure the integrity of the regulatory program, to capture additional data, and to identify more conclusive findings and trends. The actual number may change depending on the program areas, the presence or absence of problems, input from the public, and the terms of the performance agreements in each State.

Table 2 – Inspections Conducted in Primacy States in FY 2018

Region / State	State Inspections			OSMRE Oversight Inspections
	Partial	Complete	Total	
Appalachian Region				
Kentucky	10,488	6,315	16,803	365
Maryland	542	256	798	9
Ohio	1,280	709	1,989	40
Pennsylvania	6,540	4,660	11,200	327
Virginia	2,003	1,312	3,315	91
West Virginia	13,594	7,649	21,243	238
Total Appalachian Region	34,447	20,901	55,348	1,070
Mid-Continent Region				
Alabama	8	2,000	2,008	48
Arkansas	56	24	80	2
Illinois	614	304	918	24
Indiana	568	304	872	19
Iowa	0	0	0	0
Kansas	56	28	84	4
Louisiana	30	12	42	13
Mississippi	16	8	24	4
Missouri	64	32	96	4
Oklahoma	241	232	473	15
Texas	264	132	396	8
Total Mid-Continent Region	1,917	3,076	4,993	141
Western Region				
Alaska	46	23	69	5
Colorado	206	120	326	11
Montana	88	77	165	10
New Mexico	24	28	52	2
North Dakota	514	102	616	13
Utah	161	102	263	11
Wyoming	188	121	309	24
Total Western Region	1,227	573	1,800	76
Grand Total	37,591	24,550	62,141	1,287
Footnote: OSMRE inspections in primacy States include oversight inspections of all types, oversight document reviews, assistance inspections, citizen complaint site visits, and Federal action inspections, as needed. State data is for the time period of July 1, 2017, through June 30, 2018.				

c. Identifying and Correcting Violations of SMCRA

In primacy States, SMCRA requires that the OSMRE inspector provide the regulatory authority the opportunity to correct any violations observed during an oversight inspection or alleged by a citizen. On most oversight inspections, OSMRE finds that the observed violation has already been

cited by the regulatory authority or is cited during the process of a joint State/Federal inspection. In those cases where an alleged violation is not resolved during OSMRE inspection or where a citizen provides information giving OSMRE reason to believe a violation exists, OSMRE must issue a Ten-Day Notice (TDN) to the State regulatory authority whenever, on the basis of any available information, including a Federal inspection or any information received from a citizen complaint, the inspector has reason to believe that a violation exists. The State regulatory authority then has 10 days to take enforcement action, initiate other action to cause the violation to be corrected, or demonstrate good cause for not taking such action. If OSMRE determines that the State response is not appropriate, an OSMRE inspector will conduct a Federal inspection of the site and take any necessary enforcement action. This procedure does not apply to situations in which there is an imminent danger to public health or safety, or if the observed or alleged violation is causing or can reasonably be expected to cause significant, imminent environmental harm. In those cases, the OSMRE inspector must issue a cessation order if the violation is observed on an inspection, or conduct a Federal inspection if a citizen complaint alleges that a violation of this nature exists.

During Evaluation Year 2018, OSMRE observed 618 violations during oversight inspections. Of these 376 were appropriately deferred to States for action either during the joint inspection process or as the final resolution of a TDN. OSMRE found the States' actions inappropriate on 211 violations from oversight inspections. OSMRE also received 17 citizen complaints which were transmitted to the regulatory authority through the TDN process.

OSMRE will continue to work with the States to resolve any outstanding TDN issues. OSMRE has procedures in place to monitor corrective actions when issues are identified as a result of OSMRE oversight activities.

OSMRE also has an obligation under section 521 of SMCRA to take steps to ensure that all types of violations, including violations of performance standards or permit conditions and violations of permitting requirements, are corrected if the State does not take action to do so. Should a State or Tribal program not show timely adequate improvements, OSMRE has other tools under the Code of Federal Regulations (CFR), 30 CFR Parts 732 (requiring program amendments) and 733 (compelling program change or substituting a Federal program), to ensure enforcement or a program change.

In addition to the corrective actions processes described above, OSMRE's Applicant Violator System (AVS) Office promotes the use of alternative enforcement to compel compliance with SMCRA. As part of this effort, the AVS Office provides training, investigative services and identifies sites with outstanding violations for regulatory authorities to consider pursuing alternative enforcement when primary enforcement is not enough. These activities will continue throughout FY 2019 and FY 2020.

3. Federal and Indian Lands Program

The FY 2020 request provides \$7,741,000 and 46 FTE to conduct required activities in the Federal and Indian Lands Program. The request also includes an additional \$40,000 for permitting activities that will be offset with collections for new permit application fees in the Federal and Indian Lands Program.

a. States

OSMRE regulates coal mining in States without approved regulatory programs, ensuring responsible coal extraction using up-to-date science and technology.

The permit review process in Federally administered programs consists of review of the permit application package for administrative completeness and technical adequacy, preparation of findings and supporting documentation, and conducting an environmental analysis. Review timeframes vary depending on the complexity of a permit application, the size of the mine, and the response times of applicants submitting additional information required to process the permit application.

At the end of FY 2018, the Federal program in Tennessee had 117 permits for coal mining operations, of which 58 permits were in active status. There were two permitted mine sites for the State of Washington at the end of FY 2018, neither of which is currently mining coal by traditional means. One Washington mine site is, however, conducting reprocessing operations of previously-mined coal deposited in refuse impoundments, and the other site has submitted a permit revision application proposing to reinitiate mining. Permitting actions in Federal Programs are shown in Table 3.

The following information highlights key characteristics of the two States whose regulatory activities are currently administered by the Federal Programs activity:

Tennessee: During FY 2018, four sites produced coal in Tennessee. At the end of FY 2018, there were two active coal producing sites, 50 active non-producing sites, (tipples, preparation plants, etc.), 39 mine sites (i.e., non-producing sites) either in temporary cessation, mining is complete, or the site is undergoing reclamation, and 13 abandoned sites in Tennessee. In addition, seven coal exploration notices of intent were on hand at the end of FY 2018. The Knoxville Field Office (KFO) received no new permit applications in FY 2018 and has six in various stages of review. In addition, KFO received 16 Successor-In-Interest (SII) applications with several in various stages of review at the end of FY 2018. In FY 2018, KFO issued 18 SII applications and reduced the backlog throughout the fiscal year. Over the past seven-year period, Tennessee coal production experienced a general decline from 1.40 million tons in calendar year 2011 to 0.5 million tons in calendar year 2017. OSMRE has discussed the possible return of the primacy program with Tennessee on numerous occasions. Tennessee is actively pursuing development of regulations and has passed legislation in the State to assume a primacy program under Title V of SMCRA.

An interagency group comprised of State and Federal agencies, including OSMRE, the Army Corps of Engineers, the Environmental Protection Agency, the U.S. Fish and Wildlife Service (USFWS), and the Tennessee Department of Environment and Conservation, developed a local interagency working agreement (LIWA) in 2010, to improve permit coordination in Tennessee. The group continues to meet regularly to review new applications and improve the established processes, resulting in more efficient and effective decisions related to coal mining activities.

As a result of a 2015 lawsuit in Tennessee against USFWS and OSMRE alleging violation

of the requirements of the Endangered Species Act (ESA) and the 1996 Biological Opinion, the LIWA was modified to include an effects determination document. This document was developed by OSMRE in coordination with USFWS to outline and document the processes and findings used to satisfy the ESA on SMCRA permit revisions, renewals, and mid-term reviews. The document contains an assessment of the biological data, an effects determination of the impacts to ESA species, and an evaluation of whether the operation will constitute jeopardy to the continued existence for each respective ESA species on or adjacent to a proposed permitting action. The effects determination document is included in the overall NEPA analysis done for each approvable application and is included in the permit documentation.

Also as a result of the 2015 lawsuit, KFO conducted full section 7 ESA consultation on three permits. Prior to the 2015 lawsuits, KFO relied upon the 1996 biological opinion to satisfy its section 7 consultation requirements. In the 2015 settlement agreement, the decision was made to conduct section 7 consultation in lieu of relying on the 1996 biological opinion to satisfy section 7 requirements. This decision was driven by the settlement agreement and the fact that KFO was already conducting effects determinations on every permitting action involving threatened and endangered species. These effects determinations were very similar to the biological assessment required under section 7 consultation. KFO, therefore, agreed to the section 7 consultation process for these three permits.

In addition, seasonal water quality/quantity data is collected annually at established OSMRE trend stations. Data from this effort is used to evaluate and develop cumulative hydrologic impact assessments (CHIA) for permitting decisions and to help develop biological assessments to meet section 7 consultation requirements in the Tennessee Federal Program. The three sets of samples include data from 25 trend stations collected during low-flow conditions, winter mean-flow conditions, and summer mean-flow conditions. This CHIA data supports permitting decisions and helps monitor water quality impacts to ESA species.

The KFO did not forfeit any bonds during FY 2018. Bond forfeiture funds are monies collected from forfeited performance bonds. These funds can only be used to reclaim lands where the bond was forfeited and where OSMRE is the regulatory authority. Forfeited funds are site-specific and cannot be used to reclaim other sites. Surplus amounts must be returned to the operator. In FY 2017, KFO received almost \$1 million in civil penalty funds to reclaim three sites in Tennessee. The sites included reclamation of a coal refuse pile, removing an extensive highwall, and installation of a passive treatment system. In addition, KFO used residual money from three bond forfeiture sites to complete surface reclamation on three other sites. Reclamation was completed on all six sites in FY 2018.

Washington: There are two surface coal mines regulated under the Federal Program. The Centralia Mine produced coal for the adjacent Centralia Power Plant beginning in 1971 until November 2006, when the parent company, Trans-Alta Corporation, halted mining because of the high costs to recover the remaining coal. Coal for the power plant now comes from the Powder River Basin. In July 2010, OSMRE denied a request to continue temporary cessation at the Kopia Pit, and the decision was upheld on appeal. OSMRE

approved Trans-Alta's operation plan for recovery of coal from coal mine waste impoundments in February 2012. Coal recovery operations began in November 2014. This operation plan facilitates reclamation of the coal mine waste impoundments after coal recovery. The recovered coal is sold to the Centralia Power Plant. Such coal recovery is considered active mining. Trans-Alta has committed to payment of all necessary fees (royalty and abandoned mine land) associated with the mining of this coal. Trans-Alta has submitted revised reclamation plans for five areas of the mine. In October 2012, OSMRE approved the reclamation plan for the Central Packwood pit area. OSMRE's review of the revised reclamation plans for the North Hanaford Pit, Pit 7, and the Kopiah Pit and coal mine waste impoundments 3A, 3B, 3C and 3D are ongoing at this time. OSMRE approvals of the revised plans for Pit 7 and the Kopiah Pit are anticipated in 2019.

The Pacific Coast Coal Company (PCC) mine near the City of Black Diamond has not produced coal since 2000. A significant revision application to re-commence mining is currently under review. OSMRE has updated the CHIA and a revised environmental assessment for the significant revision application and the renewal of the existing permit. The environmental assessment was prepared and published and noticed for public review and comment in September 2017. OSMRE issued its approval in April 2018.

b. Tribes

OSMRE is responsible for regulation of coal mining and reclamation activities on Indian lands. The Indian lands program includes permit application review, determination of performance bond amounts, inspection and enforcement, bond release, and maintaining a staff to coordinate with the individual Tribes and other Federal agencies, as necessary. The proposed budget provides funds for activities to promote responsible mineral extraction on Indian lands.

The Crow Tribe, the Hopi Tribe, the Ute Mountain Ute Tribe, and the Navajo Nation have active permits on their lands. The mines on Indian lands are among the largest in the United States, with a total of about 100,500 acres regulated by OSMRE.

Navajo Nation and Hopi Tribe: The McKinley Mine and the Navajo Mine are large surface mines on lands within the Navajo Nation. Mining operations have ceased at the McKinley Mine, and it is currently undergoing final reclamation. Activities on the Kayenta Mine involve mining Navajo coal beneath Navajo Tribal lands surface, and coal jointly owned by the Navajo Nation and the Hopi Tribe – all of which is beneath Navajo Tribal lands surface. OSMRE assisted the Bureau of Reclamation (lead agency) on the completion of the *Draft Environmental Impact Statement for the Navajo Generating Station and Kayenta Mine Complex*. The availability of the draft Environmental Impact Statement (EIS) for public review and comment was in the Federal Register on September 30, 2016. In early 2017, the owners of the Navajo Generating Station announced they were no longer going to operate the plant beyond 2019. Due to this announcement, the lead agency has suspended the EIS. OSMRE prepared an environmental assessment on the Kayenta Mine Permit renewal which was noticed for public comment in August 2017. OSMRE then approved the permit renewal on October 3, 2017. The permit renewal term will end in 2020.

Crow Tribe: There are two surface mines in Montana that mine coal owned by the Crow Tribe. One of these mines operates within the boundaries of the Crow Reservation.

Ute Mountain Ute Tribe: Regulated Ute Mountain Ute Tribal lands in New Mexico are limited to a haul road that crosses the Ute Mountain Ute Reservation. The haul road is fully reclaimed and is currently under the period of extended responsibility for successful re-vegetation. An underground mining operation in Colorado also extracts Federal coal beneath land owned privately by the Ute Mountain Ute, outside of the external boundaries of the Ute Mountain Ute Reservation.

The number of permitting actions processed by the Indian Lands Program during FY 2018 is shown in Table 3.

Table 3 – Permit and Permit Revision Workload Where OSMRE is the Regulatory Authority

Activity	Federal Programs*		Indian Lands	
	FY 2018 Actual	FY 2019 Projected	FY 2018 Actual	FY 2019 Projected
In progress prior FY	50	51	22	26
Anticipated Submissions, current FY	50	45	72	50
Total FY workload	100	96	94	76
Completed in FY	49	46	68	70
Balance, end of FY	51	50	26	6

Source: OSMRE Data for States and Tribes system (DST) FY 2018.

*These numbers do not include reviews of more than one version of a significant revision or environmental assessment.

OSMRE coordinates closely with Indian Tribes through the regulatory process. The Federal trust responsibility is a legal obligation under which the United States has charged itself with moral obligations of the highest responsibility and trust toward Indian Tribes. OSMRE ensures that the lands and trust resources of Federally-recognized Tribes and their members are identified, conserved, and protected. In fulfilling these responsibilities, OSMRE operates within a government-to-government relationship with Indian Tribes.

Table 4 provides inspection and enforcement data for the Federal and Indian Lands Program during FY 2018.

Table 4 – Inspections Conducted by OSMRE in the Federal and Indian Lands Program

State/Tribe	Inspections			Violations	
	Partial	Complete	Total	Notice of Violations	Cessation Orders
Tennessee	545	426	971	38	2
Washington	16	8	24	0	0
States Total	561	434	995	38	2
Crow Tribe	16	8	24	0	0
Hopi Tribe	0	2	2	0	0
Navajo Nation	29	27	56	1	0
Ute Tribe	8	4	12	0	0
Tribes Total	53	41	94	1	0

Source: Inspections from OSMRE Data for States and Tribes systems (DST) FY 2018. Violation data from OSMRE Inspection and Enforcement Tracking System (I&E) FY 2018.

4. OSMRE Responsibility on Federal Lands

As previously highlighted, mining on Federal lands in primacy States is primarily regulated by the respective State through cooperative agreements with OSMRE, and is funded through the State and Tribal Funding program activity. OSMRE is responsible for preparing mining plan decision documents recommending approval, approval with conditions, or disapproval of all proposed mining plans and mining plan modifications on Federal lands under the Mineral Leasing Act, and processes valid existing rights claims that involve certain Federal lands under this program activity.

As part of the Federal Lands program, OSMRE prepares environmental impact analysis in accordance with the National Environmental Policy Act (NEPA). OSMRE consults and coordinates, as applicable, with State Historic Preservation Offices, the Fish and Wildlife Service, the Bureau of Land Management (BLM), the U.S. Forest Service (USFS), the National Park Service, the Environmental Protection Agency, and the U.S. Army Corps of Engineers, as well as with State regulatory authorities.

Processing of mining plan decision documents constitutes the largest part of the workload under this program activity. However, OSMRE also remains the regulatory authority for mining on Federal lands in States with which it has not entered into a cooperative agreement. As an example, BLM is actively working with a company to lease coal for extraction under a National forest in Arkansas. Arkansas does not currently have a cooperative agreement to regulate coal mining on Federal lands so, once BLM issues a lease, OSMRE becomes responsible for issuing a Federal lands permit. After permit issuance, OSMRE will conduct regular regulatory inspection activities.

This request includes \$1,436,000 and ten (10) FTE for the Federal Lands program.

Table 5 provides projected mining plan decision document workload data.

Table 5 – Mining Plan Decision Document Workload on Leased Federal Coal, by Fiscal Year

Mining Plans and Modifications to Existing Mining Plans		
Activity	FY 2018 Actual	FY 2019 Projected
In progress prior FY	5	5
Anticipated Submissions in current FY	8	13
Total FY workload	13	18
Completed in FY	8	14
Balance, end of FY	5	4

Under this program activity, OSMRE also provides support to BLM and USFS in leasing activities that involve Federal coal resources. OSMRE’s participation in NEPA compliance analyses prepared at the leasing stage ensures the consideration of OSMRE mine plan approval concerns. This cooperative effort saves mining companies valuable time in the leasing and mine plan approval process; it also may result in improved resource recovery. In addition, satisfactory evaluation of the environmental impacts of coal mining in the proposed lease area at the time of leasing can reduce the likelihood of the need for a subsequent Environmental Assessment or Environmental Impact Statement for mining plan approval under SMCRA. OSMRE will continue efforts to implement the recommendations in the joint BLM/OSMRE report to the Secretary on efforts to streamline the NEPA process for mine plan decision documents for leased Federal coal.

5. Program Development and Maintenance

Work elements under this program are primarily related to policy actions, such as rulemaking, grants management and special studies that support the other program activities in the environmental protection business line. This request provides \$6,594,000 and 35 FTE.

a. Rulemaking

OSMRE issues Federal rules and prepares the associated information collection clearance packages. Functions under this program activity include rule development and preparation of environmental assessments, environmental impact statements, and cost benefit analyses for rules prepared by OSMRE. Prior to and during the development of a proposed rule, OSMRE involves the public and interested parties. This stakeholder participation results in improved regulatory proposals. OSMRE also maintains the administrative record for rules and coordinates rule publication with the Office of the Federal Register. OSMRE had several rulemakings in progress at the time the President issued his *Regulatory Freeze Pending Review* memorandum on January 20, 2017. The primary rulemaking activity for OSMRE at publication of this document deals with State programs.

Rulemaking Associated with State Programs: OSMRE assists States with development, administration, implementation, and maintenance of their approved regulatory programs. Decisions to approve or disapprove State program amendments are Federal rulemaking actions.

OSMRE evaluates State-initiated program changes (statutory, regulatory, or changes in the program’s provisions, scope, or objectives), as well as OSMRE required modifications that are a result of legal interpretations or changes to SMCRA and Federal regulations. In its evaluation, OSMRE solicits public comments through proposed rules published in the Federal Register, holds public meetings, maintains the administrative record, approves or does not approve proposed State program amendments, and publishes the decisions as final rules in the Federal Register.

During FY 2018, OSMRE completed activity on 8 State program amendments, as summarized in Table 6.

**Table 6 – FY 2018 State Program Amendment Activity
Number of Amendments**

Amendment Type	Pending Oct. 1, 2017	Received FY 2018	Completed FY 2018	Pending Sept. 30, 2018
Pre-Submission Assistance	5	3	3	5
Formal	50	8	16	42
Total	55	11	19	47

States may be required to amend their programs as a result of changes to SMCRA and Federal regulations. When a State program amendment is required, OSMRE notifies the State of the required change and reviews the State submission and either approves or disapproves the proposed change.

b. Grants Management

OSMRE supports and participates in the Administration’s E-Government initiative, and Health and Human Services’ government-wide electronic grants application system (Grants.gov). OSMRE is currently using DOI’s Financial and Business Management System (FBMS) financial assistance module for internal processing of all grant and cooperative agreement transactions. OSMRE and the State/Tribal grantees cooperate to maximize the use of available funding and operate an effective program. This cooperative working relationship contributes to a streamlined application and awards process, faster obligation of Federal funds, innovative program monitoring, less paperwork, and intensive reporting and close-out of grants.

c. Special Projects

OSMRE’s special projects include interpretation of SMCRA, reports to Congress, legislative analyses, and assistance in response to litigation. OSMRE also conducts studies and analyses in response to Departmental initiatives, and coordinates with other DOI bureaus and Federal agencies whose activities can affect the surface coal mining regulatory program. Such agencies include the Fish and Wildlife Service (Endangered Species Act), Advisory Council on Historic Preservation (National Historic Preservation Act), EPA (Clean Water Act, Resource Conservation and Recovery Act, and others), Army Corps of Engineers (Section 404 of the Clean Water Act permits), Mine Safety and Health Administration, and the Small Business Administration (Small Business Regulatory Enforcement Fairness Act). OSMRE will continue to streamline the NEPA process

for consistency with DOI guidelines and policies in compliance with Secretarial Order 3355. In addition, OSMRE will continue the development and implementation of a Biological Opinion for Title V of SMCRA by completing a formal programmatic consultation with the Fish and Wildlife Service.

ENVIRONMENTAL PROTECTION

2019 Planned Program Performance

In 2019, the planned activities in the Environmental Protection program activity include:

- In furtherance of cooperative Federalism, OSMRE will continue its oversight steering committee with State Regulatory Authorities to discuss impediments to meaningful and effective oversight including revising current OSMRE oversight directions.
- Review of the formal Tribal primacy submission from the Navajo Nation and assist the Navajo Nation Minerals Department with their primacy presentation to the Navajo Nation Council.
- Continue the review of informal submissions from the Crow and Hopi Tribes.
- Review the formal Tennessee primacy submission and assist the Tennessee Department of Environment and Conservation with development of its program.
- Complete 14 mining plan decision documents on Federal lands including associated environmental effects analysis in compliance with the National Environmental Policy Act (NEPA).
- Complete analyses, assembly and submission of 15 information collection clearance packages to OMB for renewed approval per Paperwork Reduction Act of 1995 (PRA) requirement.
- OSMRE will monitor the implementation of Kentucky's program amendments related to its bonding program for effectiveness through oversight studies and monitoring.
- Achieve the goals for performance measures identified in the Goal Performance Table for this business line, and engage youth by providing educational and employment opportunities to young adults in fields associated with surface coal mining regulation and reclamation.

2018 Program Accomplishments

In 2018, the major accomplishments in the Environmental Protection program activity included:

- Working collaboratively with Pennsylvania, OSMRE assisted the State's SMCRA program to improve its inspections rate of active permits from a low of 69 in 2014 to a rate of 90 percent in 2018.
- OSMRE used unmanned aerial vehicles to reduce the time and resources needed by States and OSMRE to carry out SMCRA Title V requirements while at the same time increasing accuracy. As part of this effort, OSMRE and State field staff started integrating Global mapper software to their tablets thus increasing accuracy of these efforts.
- OSMRE and its Appalachian Region were recognized for leading a group of Federal, State and local organizations in cleaning water contaminated at the Flight 93 National Memorial. OSMRE's expertise in acid mine drainage allowed it to provide technical expertise in removing iron and manganese from mine-impacted water and to prevent it from surfacing within the memorial.
- Reestablished consistency between the CFR with the regulations that were in effect on January 18, 2017 before nullification of the Stream Protection Rule by the OSMRE published in the Federal Register on November 17, 2017.
- Implemented the Federal and Indian Lands Programs; conducted 475 complete and 614 partial inspections, and completed 117 permit revisions.
- States performed 24,550 complete mine inspections and 37,591 partial inspections to ensure coal mines are operated safely and in accordance with environmental laws.
- OSMRE continued to promote utilization of the Forestry Reclamation Approach (FRA), with 65 percent of all trees planted on FRA prepared areas. A total number of 5,554,977 trees were planted during FY 2018 with 3,583,295 utilizing FRA on 5,270 acres.
- Completed eight mining plan decision documents recommending approval of the mining plan modification including the preparation of eight environmental assessments analyzing the environmental effects of the mining plan modification in compliance with NEPA.
- Completed analyses and received OMB approval for 16 information collection clearance packages per PRA requirement.

TAB

Technology Development and
Transfer

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TECHNOLOGY DEVELOPMENT AND TRANSFER

Technology Development and Transfer Budget Request

(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	2020				Change From 2019 (+/-)
			Fixed Costs (+/-)	Internal Transfers (+/-)	Program Changes (+/-)	2020 Request	
Regulation and Technology	12,801	12,801	+53	-	+1,911	14,765	+1,964
Technical Assistance	10,232	10,232	+34		+402	10,668	+436
<i>FTE</i>	46	48			-	48	-
Training	1,949	1,949	+13		+42	2,004	+55
<i>FTE</i>	19	19			-	19	-
Technology Transfer	620	620	+6		+1,467	2,093	+1,473
<i>FTE</i>	11	11			-	11	-
Abandoned Mine Reclamation Fund	3,544	3,544	+11	-	+21	3,576	+32
Technical Assistance	1,585	1,585	+5		+27	1,617	+32
<i>FTE</i>	8	7			-	7	-
Training	794	794	+5		-5	794	-
<i>FTE</i>	8	7			-	7	-
Technology Transfer	1,165	1,165	+1		-1	1,165	-
<i>FTE</i>	1	1			-	1	-
Total, Technology Development and Transfer	16,345	16,345	+64	-	+1,932	18,341	+1,996
Total FTE	93	93			-	93	-

Note: 2018 FTE figures reflect actual usage.

Fixed Costs of \$64,000 in pay related items.

Summary of 2020 Program Changes for Technology Development & Transfer

Request Component	(\$000)	FTE
Priority Alignment	+36	
Coal Information Management System	+429	
Enhanced GeoMine Support to States	+500	
AMDTreat Software Development	+347	
Unmanned Aerial System	+150	
Applied Science Projects	+470	
TOTAL Program Changes	+1,932	-

The Technology Development and Transfer program supports technical skills that States and Tribes need to operate their programs. In FY 2020, OSMRE provides resources for technical assistance, training, technology development, and technology transfer.

Justification of 2020 Program Changes

Priority Alignment (+\$36,000): The FY 2020 budget maintains Technology Development and Transfer staffing and operational activities, and aligns OSMRE’s existing resources across business lines to optimize fulfillment of OSMRE’s statutory responsibilities and support of administration priorities.

Coal Information Management System (+\$429,000): The Coal Information Management System will enable mine operators to plan and monitor multiple phases of applications and permits in an interactive, geospatial manner not possible with traditional, paper-based processes. The system will automate the workflow between operators and regulatory authorities and provide accountability for all parties at all stages of the process.

Enhanced GeoMine Support to States (+\$500,000): The GeoMine Geographic Information System contains SMCRA-oriented data for geology, soils, and hydrology from multiple Federal and State agencies. Enhancements will assist regulatory authorities in mine plan reviews, aid in oversight responsibilities, and help streamline the permitting process to improve overall program performance.

AMDTreat Software Development (+\$347,000): AMDTreat is the industry standard for estimating long-term treatment costs for polluted mine water drainage. Users of the system include watershed associations, regulatory authorities, environmental groups, and industry located in over 40 States and across 40 countries. Funding is requested for additional system modules, including a water quality simulation tool to estimate the cost effectiveness of different treatment methods. The enhancements will allow users to develop systems that are cost effective, potentially saving millions of dollars.

Unmanned Aerial System (+\$150,000): OSMRE will use the Unmanned Aerial Systems (UAS) to enhance its evaluation of active and abandoned mine sites, especially on large land areas with diverse or complicated topography, or on areas such as landslides where unstable, dangerous conditions may be avoided by using a UAS. Many States are seeking OSMRE assistance in using this technology for

data collection and processing on sites that require quick action and accurate digital terrain modeling. The requested funding will procure two additional systems that will allow OSMRE to better meet the States' demand for assistance, and save money and time compared to traditional monitoring.

Applied Science Projects (+470,000): OSMRE will invest in applied science projects, or studies, advanced technologies and practices specific to coal mined sites for more comprehensive ecosystem restoration. By continuing to use the results of applied science projects and studies, OSMRE anticipates improved technical evaluation of issues to maintain program effectiveness, improve compliance with existing laws, and support advances in coal mining and reclamation.

OVERVIEW

The Technology Development and Transfer (TDT) business line (program activity) provides resources for technical assistance, training, technology development and technology transfer program sub-activities. This program activity supports and enhances the technical skills that States and Tribes need to operate their regulatory and reclamation programs. Through support of OSMRE's restoration and protection goals, TDT funds implement effective partnerships with OSMRE's stakeholders. TDT is a Nation-wide program that provides resources to States and Tribes that meet their specific technical and training needs in carrying out the requirements of SMCRA.

**TECHNOLOGY DEVELOPMENT & TRANSFER
ENCOMPASSES:**

Technical Assistance
Technical Training
Technology Transfer

In FY 2019 and FY 2020, OSMRE will continue to promote, to the extent possible, the use of Technical Innovation and Professional Services (TIPS) in technical decision-making processes related to SMCRA; address the remediation of acid mine drainage through participation in the Acid Drainage Technology Initiative; and finalize changes and provide training and technical assistance to meet identified needs of States and Tribes. Also, OSMRE's technology transfer program

will continue its support for electronic permitting and mobile computing efforts, by sponsoring interactive technical forums and related workshops. In addition, OSMRE will continue to provide regional technical service, libraries, and more efficient access to COALEX (a computer-assisted library search service).

Operational Process (Program Activities): The TDT program activities enhance the technical skills that States and Tribes need to operate their regulatory and reclamation programs in order to more effectively implement SMCRA. These program activities are an integral part of accomplishing Environmental Restoration and Environmental Protection to achieve OSMRE's goals and outcomes.

OSMRE provides technical assistance and training to OSMRE staff, and States and Tribes on a variety of topics. To solve problems related to the environmental effects of coal mining, OSMRE provides multidisciplinary technical assistance, and works with industry, States, Tribes and the public on technical issues arising from new regulations. Other technical assistance efforts include the TIPS, the Applicant Violator System (AVS), and Coal Information Management System (CIMS). OSMRE also established an intergovernmental team, the National Technology Transfer Team (NTTT) to provide direction, communication, and coordination of efforts related to technology transfer and development. This team is a permanent entity and will continue throughout FY 2019 and FY 2020. New technologies, changes in regulations, and staff turnover necessitate the need for continued technical training. OSMRE provides this required training through the National Technical Training Program (NTTP). Technology transfer is a major part of OSMRE's cooperative effort with States and Tribes.

The outcome of TDT program performance is ultimately measured by the success of the regulatory and reclamation programs in carrying out their environmental restoration and protection missions. In addition, performance for the business line is measured through the number of staff technically trained (including knowledge and skills taught and applied), the utilization of automated technologies (such as TIPS), and the quality and timeliness of technical assistance provided by OSMRE, determined via evaluations and customer service surveys.

Actions Required to Achieve Annual Goals: In FY 2020, OSMRE plans continued improvements in this business line. The NTTP, TIPS, the National Mine Map Repository (NMMR), and AVS will increase access to users by continuing to provide material via the Internet and supporting the Administration's E-Government initiative. In addition, the NTTP and TIPS will continue to work with technical leadership to provide direction, communication, and coordination efforts related to technical issues and studies.

Resources, Skills, and Technology Needed: An ongoing goal for FY 2020 is to continue ensuring States, Tribes, and OSMRE have the best available technical data and information needed to make good science-based decisions regarding mining plans, reclamation project design, permit reviews, and acid mine drainage remediation and prevention. To successfully implement the surface mining regulatory and reclamation programs, OSMRE, as well as the States and Tribes, must maintain multi-disciplinary staffs that are fully competent in addressing a wide variety of technical issues that impact these programs.

The total FY 2020 request for this business line is \$18.3 million. The request includes \$12.3 million for Technical Assistance (including the TIPS and AVS support); \$2.8 million for Technical Training; and \$3.3 million for Technology Transfer efforts to meet the annual goals set forth above.

The following section details by program activity, the funding and FTE resources required to meet our customer satisfaction performance measures. It also includes examples of the types of technical training, assistance efforts, and transfer provided by this business line.

2020 PROGRAM PERFORMANCE

The following program activities support OSMRE's goal to strengthen the capabilities of the States, Tribes, and OSMRE staff to implement SMCRA effectively through quality technical and scientific information, expertise, and training. Skill and knowledge enhancement is critical to the continued success of surface mining and reclamation programs. In addition, OSMRE will provide opportunities to students and recent graduates, either directly or through cooperative agreements, under various activities described in this section to engage young men and women in technical and natural resources activities.

OSMRE's stakeholders (States, Tribes, the public, and industry) continue to express support for Technology Development and Transfer efforts and encourage OSMRE to provide the types of technical support needed to effectively and efficiently meet SMCRA, the National Environmental Policy Act, and other environmental and safety laws. Helping the States, Tribes and industry achieve up-front compliance will reduce the need for additional regulatory resources. The TDT program area described in the following pages represents those activities where OSMRE staff provides direct technical support and ongoing efforts in other business lines. Many activities not yet conducted in FY 2019 will identify the needs for activities in FY 2020. In addition, adjustments in activities may be necessary during FY 2019 and FY 2020 in order to focus resources on the highest priority program needs. Therefore, the discussions are representative of the types of activities that will be conducted in the future.

1. Technical Assistance

This program activity provides assistance to State and Tribal regulatory and reclamation staff, and to OSMRE staff that review and monitor State programs, develop rules or policy, litigate SMCRA challenges or enforcement actions, or maintain other technical support infrastructure such as TIPS, AVS, and technical training programs. The \$12,285,000 requested for FY 2020 will fund 55 FTE to carry out these activities.

Technical assistance is provided specific to abandoned mine land projects, civil penalty and bond forfeiture projects, and other regulatory matters. These types of endeavors are integral parts of the Environmental Restoration and Protection business lines and are not included in this program activity.

Customer surveys such as those conducted under the Government Performance and Results Act (GPRA) are used to document the responsiveness of OSMRE's technical assistance to its customers in a timely and professional manner. By meeting the technical assistance needs, OSMRE can effectively achieve its Environmental Restoration and Environmental Protection mission goals while fostering the efficient use of our natural resources.

a. Technical Policy Assistance

OSMRE specialists provide technical assistance to State and OSMRE regulatory and reclamation policy staff. The areas of assistance include rulemaking; citizen complaint investigations; review of offsite impacts; guideline development; State program amendments; State mining permit

evaluation; and AML problem evaluation. It also deals with blasting policy; prime farmland reclamation; geomorphic reclamation; soil substitution, coal combustion residue placement; reclamation bonding sufficiency and bond release; threatened and endangered species; restoration of mined land with native vegetation; land unsuitability determinations; and participation as technical experts on interagency committees. Additionally, the assistance includes acid mine drainage (AMD) prevention and remediation; acid and toxic forming materials handling; surface and groundwater dewatering; stream and underground mine flooding; mountaintop mining and valley fills; permit findings; re-mining; impoundment stability; subsidence caused by underground mining; and assistance in fostering Tribal primacy by helping Tribes develop technical capabilities.

Examples of activities for FY 2019–FY 2020 include:

Blasting: Annually, OSMRE facilitates discussions between State and Federal blasting specialists to foster a better understanding of blasting issues and technology that result in consistent defensible application of blasting rules, National certification of blasters, and resolution of citizen complaints. To achieve these goals in FY 2018, OSMRE conducted State-specific blasting inspection training, utilized Excel tools to predict and evaluate the adverse effects of blasting, maintained the OSMRE Blasting webpage, hosted monthly Blasting Technical Chat conference calls (15-20 participants monthly), facilitated State regulatory discussions at State coordinated workshops, and responded to numerous State inquiries for technical information and advice.

OSMRE continues to issue OSMRE Blaster Certificates (recognized by many States for certificate/license reciprocity), provided continuing education for blasters, and maintained the Blaster Certification Tracking System (BCTS) which is used to track Federally-certified blasters. Currently, 47 blasters possess OSMRE Blaster Certificates in the Federal and Indian Lands Program, in the States of Tennessee and Washington and in the Navajo and Crow Nations, respectively. Also, OSMRE facilitated discussions of the Appalachian Blaster Certification Delegation (ABCD) whose aim is to standardize training, experience requirements, and testing of blasters and participated in the ABCD Blasting Inspectors' Workshop. The goal of the ABCD is to develop consistent and fair enforcement actions against the individual blasters.

In FY 2019 and FY 2020, OSMRE will continue to help the States address technology issues related to the use of explosives. Included will be support for new products, new design techniques, interpretation of seismic and acoustic monitoring information, the proper deployment of blasting seismographs, consistent development of blasting plans, blast area security assurances, establishing safe vibration limits, control of flyrock, minimization of blast fumes, and proper record keeping. Blaster certification programs will continue to be supported to ensure adequate training, improved work experience opportunities, consistent testing, and uniform certificate issuance and reciprocity across the Nation. Support will also continue at National continuing education events that provide technological and regulatory updates to blasters in need of continuing education credits. To ensure that OSMRE continues to promote the best technologies currently available, OSMRE will also assist the International Society of Explosives Engineers' Standards Committee develop and maintain performance and field deployment standards for blasting seismographs and participate on the National Fire Protection Association's Technical Committee on Explosives that develop standards on the safe use of explosives.

Dam Safety Program: OSMRE's Dam Safety program has achieved notable accomplishments

through implementation of newer standards of oversight to help reduce the probability of dam leaking or breaks. OSMRE's Dam Safety Team is comprised of Regional Dam Safety Representatives and OSMRE's Dam Safety Officer. The team works to review current regulations, directives, guidelines and other mechanisms to ensure that current best practices are employed.

The Dam Safety Team meets regularly and is responsible for completing inventory updates and assistance in providing data to support the annual DOI Dam Safety Program Performance Report, the biennial FEMA report and the annual Army Corps of Engineers report. The dam safety database ranks OSMRE dams in accordance with the Hazard classification followed by the U.S. Department of Agriculture, Soil Conservation Service Technical Release (TR) No. 60 (2005). The database also includes the FEMA 333 hazard classification of High, Significant and Low hazard dams (impoundments).

OSMRE is taking a proactive role in participating in DOI's Working Group on Dam Safety and Security (WGDSS) to further delineate more precise language on detailing hazard classification criteria. This will facilitate hazard classification characterization schemes within the bureaus. In addition, OSM supports joint regulatory activities along with MSHA to review and improve dam safety processes. Team members also keep abreast of industry standards through participation in conferences, meetings and work groups to maintain the highest standards within the dam safety arena. OSMRE recognizes the importance of the dam safety program in providing a mechanism to improve risk reduction in the design, construction and maintenance of mining operation activities.

Acid Mine Drainage (AMD): Surface and underground coal mining activities expose iron sulfide minerals in rock to weathering. The interaction of these rocks/minerals with air and water can result in AMD, and/or metal-rich drainage, which are the primary water quality problems in Appalachia and to a lesser, but still serious, extent in other coal and hard rock mining regions.

OSMRE will continue to participate in the Mine Drainage Technology Initiative (MDTI) (formally known as Acid Drainage Technology Initiative (ADTI)) in FY 2019 and FY 2020. MDTI is a collaborative effort among Federal agencies, industry, State environmental agencies, academia, and the National Mine Land Reclamation Center to promote communication and technology enhancement in the fields of emerging mine water issues, particularly AMD, selenium and specific conductance prediction, prevention and treatment, and biological impacts.

In early August 2017, OSMRE placed a notice of funding opportunity for the MDTI cooperative on the grants.gov web page, with a closing date of September 30, 2017. OSMRE received 10 proposals from 10 different universities from across the country. OSMRE's MDTI Merit Review Panel evaluated the ten proposals, selecting for award the proposal submitted by researchers at Iowa State University (ISU) titled, "Remediation of Coal Mine Drainage with Industrial Byproducts." ISU researchers will evaluate the feasibility of using industrial byproducts along with geosynthetic membranes as sorptive barriers for the remediation of coal mine drainage (CMD). Researchers will specifically test recycled concrete aggregate fines, non-cementitious high carbon fly ash, and excess quarry fines; industrial byproducts that have little economic value and are either landfilled or stored with no viable reuse option. The intent of the proposal is to (1) determine the effectiveness of the industrial byproducts to mitigate CMD water quality; (2) evaluate the impacts of using the industrial by products on water quality and microbial ecology;

and (3) evaluate the cost effectiveness of the use of industrial byproducts to treat CMD. Funding for the 2-year cooperative agreement commenced on July 1, 2018.

AMDTreat Software: AMDTreat is a computer application developed by OSMRE that is the industry standard for estimating long-term treatment costs for polluted mine water drainage, commonly referred to as acid mine drainage (AMD). Users include watershed associations, regulatory authorities, environmental groups and industry located in over 40 States and across 40 countries. As a result, most Appalachian States rely on AMDTreat to help support various aspects of their regulatory and abandoned mine land programs. For example, Pennsylvania Department of Environmental Protection requires operators and permit reviewers to use AMDTreat to calculate or substantiate treatment costs for all 254 long-term discharges covered by a bond or trust fund. The fact that AMDTreat has been used to calculate and substantiate in excess of \$304,931,500 of treatment liability in Pennsylvania is a testament to the importance of the software in supporting State programs.

OSMRE has supported a cooperative project to update the computer coding and enhance treatment modules of AMDTreat and has completed 13 of the 16 modules in Phase 1 of the project as of the end of FY 2018. The remaining 3 Phase 1 modules are on schedule to be completed by December 31, 2018. The cooperative effort to perform the recoding and enhancement includes OSMRE, the United States Geological Service (USGS), and the regulatory authorities of Pennsylvania and West Virginia. Funding has been requested for Phase II of the project, which will include 5 additional modules, report function, help, and a water quality simulation tool to estimate the cost effectiveness of different treatment methods. These enhancements will result in a software package that allows a user to develop systems that are cost effective, potentially saving millions of dollars. This ongoing effort will continue throughout FY 2019 and into FY 2020.

Unmanned Aerial Systems (UAS): In FY2018, OSMRE kicked off its Unmanned Aerial Systems (UAS) program. The National and Regional aviation management plans were approved which for the first time in our Bureau recognized UAS as aircraft and implemented procedures including but not limited to safety, protection of privacy and mission reporting for transparency. So far, OSMRE has certified 19 trained pilots and purchased 14 aircraft nationwide to enhance its mission success. OSMRE will continue to train personnel as UAS operators and purchase additional aircraft as needed.

OSMRE will be using the UAS to enhance its evaluation of active and abandoned mine sites, especially on large land areas with diverse or complicated topography, or on areas such as landslides where unstable, dangerous conditions may be avoided by using a UAS. OSMRE has various sensors that can be mounted on the aircraft based on the desired need of the missions. OSMRE is finding that as it develops its expertise, many States are seeking OSMRE assistance in using this technology for data collection and processing on sites that require quick action and accurate digital terrain modeling.

A project that exemplifies the advantage of using drones is the Isabella mine site that was flown over this summer. The site, located near Uniontown, Pennsylvania, is abandoned and has numerous safety and environmental concerns, from pollutional water quality, large unprotected refuse piles, and an impoundment that floods a nearby public road after heavy rainfall. The drone flights were conducted to create 3D models and GIS data that can be used to create a reclamation plan to remedy the problems and improve water quality discharges.

OSMRE will continue to test and evaluate additional aircraft, sensors and software as they become

approved and available, incorporating this technology into the business line.

Designating Areas Unsuitable for Surface Coal Mining: Section 522 of SMCRA establishes a process by which the public may petition the regulatory authority to limit or prohibit all or certain types of surface coal mining operations on land areas to protect certain features or environmental values. OSMRE receives and processes these petitions for all lands for which it is the regulatory authority. The decision-making process includes preparation of an environmental impact statement and a takings implication assessment.

OSMRE also is responsible for making valid existing rights (VER) determinations under section 522(e) of SMCRA for all Federal lands and all lands for which OSMRE is the regulatory authority. Section 522(e) prohibits or limits surface coal mining operating within certain areas, subject to valid existing rights.

Both unsuitability determinations and VER determinations require substantial technical and programmatic resources and are supported by the Environmental Protection business line. They also involve litigation support if a takings claim is subsequently filed against the Federal Government.

b. Site-Specific Technical Assistance

OSMRE specialists assist in the technical aspects of compliance monitoring (including inspection and enforcement assistance), experimental practice reviews, reclamation cost estimate calculation, bond release application reviews, bond approval reviews, bond forfeiture reclamation designs, land unsuitability determinations, surveying, revegetation, geologic sampling, AML designs, subsidence and AMD abatement, and any technical assistance on citizen complaints and ten-day notices. The following are examples of the types of assistance provided to States and Tribes.

Missouri Technical Assistance, Foster Mine Blasting Damage Complaints: In response to a damage allegation, the OSMRE Blast Log Evaluation Program (BLEP V2) was used to evaluate 49 blast logs over a one-year period. The revised BLEP program found numerous inconsistencies in record keeping and ground vibration limits that were exceeded four times. Furthermore, individual blast vibration time histories had numerous instances where the regulatory limits of the Blasting Level Chart were exceeded. The vibration limits of the BLC are the best gauge of damage potential and damage caused by blasting to the residence and damage could not be ruled out. This resulted in a modification of the blasting activities to ensure the prevention of damage with a higher level of confidence.

The Wilds Ohio Mine Drainage and Impoundment Assessment, Ohio: OSMRE is working cooperatively with The Wilds, a 9,000 acre park that is home to numerous rare and endangered species from around the world, to remove a series of AML impoundments and to develop passive treatment systems to handle legacy acidic, metal-laden mine drainage. Encompassing a large area of the northern portion of the park, numerous abandoned impoundments with degraded mine water pose safety hazards. Ohio Department of Natural Resources, Division of Water Resources dam safety personnel wants to remove several dams considered hazardous that were created decades ago when the site was surface mined (pre-law). The Wilds requested our technical support to determine the hydrologic impacts (mainly quality) that might occur once the dams are removed.

Initially, an overall assessment was conducted of the water quality both in the impoundments and receiving streams. Based on what was learned, OSMRE was able to discern the impact removal would cause could be mitigated by the construction of low maintenance passive treatment systems developed to handle the numerous mine drainage sources. One of the larger impoundments known as “Dead Lake” is targeted as the first impoundment to be dewatered and a treatment system is under design to handle the mine drainage.

West Virginia Threatened and Endangered Species Protection and Enhancement Plans (PEPs): OSMRE ecologists are working with the West Virginia Department of Environmental Protection and the U.S. Fish and Wildlife Service to develop a series of PEPs for the threatened and endangered species of the State. These PEPs include crayfish (Guyandotte and Big Sandy), various mussels, and other aquatic species as well as terrestrial species (e.g., bats). This technical support project is an outgrowth of a specific study of the impacts of sediment from surface mines on the receiving streams which are the habitat of the Guyandotte and Big Sandy crayfish.

Isabella Mine Complex, Pennsylvania: OSMRE is providing considerable technical support to treat acid, metal-laden mine drainage, reclaim an AML/post-law abandoned mine coal refuse and partially dewater an existing impoundment for the PADEP. The project includes developing a large passive treatment system for several mine discharges combined to one point. The existing exposed, unreclaimed coal refuse will be regraded to afford positive drainage as well as topsoiled and vegetated. There is an existing large impoundment which no longer decants as needed and thus has flooded a nearby county road during heavy precipitation events. The water level in the impoundment will be lowered to prevent flooding with a new discharge system installed to maintain that lower water level.

Isabella, PA Bathymetry Work: OSMRE has the ability to conduct bathymetric surveys of water features such as final impoundments, slurry ponds, sediment ponds, and other water bodies on active and AML sites. The work involves collecting water depth measurements using sonar pulses and GPS positions. The data can be used to derive underwater surface models and contours. At the request of PADEP, OSMRE conducted a bathymetric survey of a large impoundment (~32 acres) on a bond forfeiture site (Isabella, PA) during the week of December 18, 2017. The surface models generated from this technical assistance enabled the project team to develop accurate reclamation cost estimate.

AL AML Drone Mission at Three Forks South: OSMRE established UAS program in FY 2018 with two OAS approved drone pilots. OSMRE has the ability to conduct UAS missions and produce images and videos that can be used to aid in site assessment process. In June 2018, Alabama’s AML program requested a pre-construction drone mission to be conducted by OSMRE pilots at Three Forks AML project site located near Oakman, AL. MCR pilots conducted the drone mission on July 18, 2018. OSMRE delivered orthomosaic images, elevation models, video, and photos. Alabama’s AML program expressed their great appreciation and asked OSMRE to conduct two more drone missions (during and post construction) at the Three Forks South site in FY 2019.

AL AML Survey123 Forms: Survey123 is a simple and intuitive form-centric data gathering application that makes creating, sharing, and analyzing surveys or geospatial dataset possible in just few steps. Survey123 forms are designed to answer questions; geo point locations, select from prepopulated answers, show more options based on previously answered question, take geo tagged pictures, and record other useful attributes. The forms can be submitted as completed in realtime or later at the user's convenience. The data generated from Survey123 can be used in other GIS Apps or software platforms such as ArcMap, ArcGIS Pro, Global Mapper, AutoCad, and more. Alabama's AML program requested a technical assistance from OSMRE for converting a couple of their daily report paper documents. OSMRE created Survey123 forms for AL AML program and provided a follow up training on "how to use" and "how to create/modify Survey123 forms" in FY 2018.

Illinois Old Ben 25 Bathymetry Work: Illinois Land Reclamation Division (LRD) contacted OSMRE on a short notice to conduct a bathymetric survey at SI Energy slurry impoundment (Old Ben 25) near West Frankfort, IL. The 70+ acre slurry impoundment is part of a bond forfeiture project in which the slurry pond volume had to be determined. OSMRE staff conducted the survey on May 16, 2018. Subsequent data processing took place immediately after the survey and final products (contour maps, surface models, and fill calculations) were delivered the next week.

Kansas Monahan AML Passive Treatment System Design: Kansas Department of Health and Environment (KDHE) requested for AMD treatment options and engineering design of finalized treatment option for Monahan AML site in Kansas. OSMRE's hydrologist and mining engineer formulated a best treatment option and developed a draft design work in CAD format. The final products were delivered to KDHE in August 2018.

Mine Water Treatment Systems Efficiency Evaluation: Numerous cases of active and abandoned mine water treatment systems exist throughout the Appalachian Region. The efficacy of these systems is often well below optimum conditions due to a variety of reasons. Abandoned mine water treatment systems are generally operated by State agencies or local non-government organizations and require continual funding for ongoing operations and maintenance (O&M). Water treatment at active mine sites has the statutory requirement of treating to meet National Pollutant Discharge Elimination System (NPDES) effluent standards. Sufficient bonding is required to assure that treatment continues until the water quality meets effluent standards without treatment; which in many instances lasts for decades. Characterization of the mine water treatment systems allows for determination of the estimated time period that treatment may be necessary, methods for improvement of the existing treatment system efficiency, and cost to construct and operate new or replacement treatment systems as well as the potential for employing new innovative technologies to save capital, labor and materials costs. Many existing treatment systems were designed and constructed based on technology developed many years ago. New technologies and methods (e.g., use of high-strength hydrogen peroxide as an oxidant for iron removal) have been shown to greatly reduce treatment costs and diminish the volume of residual sludge created during treatment.

In FY 2018, OSMRE continued evaluating numerous mine water treatment facilities in West Virginia, Virginia, Pennsylvania, Kentucky, and Tennessee. Approximately 21 active permit sites in Tennessee have either been or need evaluated by the Knoxville Field Office (KFO) and technical support has been provided for the long-term treatment liability of perpetual mine water discharges.

Upon request, operators have provided mapping of the permit area including treatment facilities, water quality and flow data, and long-term costs for O&M of the existing treatment facilities. Based on the information provided by the operator, OSMRE evaluates the current treatment approach and provides suggested improvements or new treatment technologies along with the associated capital and annual (O&M) costs for each mine discharge. In Tennessee, OSMRE uses the establishment of long term treatment trusts financed by the operator to provide perpetual funding for the O&M and capital improvements of mine water treatment facilities. The KFO also requested technical assistance in the form of conceptual passive treatment system layouts for four different civil penalty sites with perpetual mine water discharges. The passive treatment systems at each site have either been constructed or are currently under construction through contracts administered by KFO.

In FY 2018, Tennessee established a bond fund to address post-mining water quality at six sites as part of the Horizon Natural Resources bankruptcy. Tennessee Consolidated Coal Company, a subsidiary of Horizon, held 14 permits in Tennessee. Six of these permits have long-term treatment obligations. Through the bankruptcy negotiations, OSMRE successfully acquired \$3 million in dedicated funding to address the poor water quality discharges in perpetuity.

Evaluations for three mine water treatment facilities within the North Branch Potomac River watershed in northeastern West Virginia were revised or finalized as requested by the Charleston Field Office for long-term treatment costs related to O&M of the mine pool pumping and water treatment facilities. Operators of the three facilities provided some of the information requested by OSMRE and West Virginia Department of Environmental Protection related to treatment system mapping, schematic diagrams, and water quality and flow information for the raw mine water sources at each site. This information allowed OSMRE to evaluate each facility under multiple cost-modeling scenarios using AMDTreat software in order to develop annual O&M costs for the existing systems and the capital and annual costs for new replacement systems with recommended technologies to improve treatment efficiency and reduce operating costs. The capital and annual costs for the new and existing systems were used to calculate a present value as an estimated bond or trust amount for perpetual operation of each treatment facility.

In FY 2018, OSMRE provided technical assistance to Pennsylvania Department of Environmental Protection (PADEP) and Virginia Department of Mines, Minerals, & Energy related to existing passive treatment systems for mine water discharges that are not functioning as intended. OSMRE personnel conducted site visits, sampled waters within each system to evaluate performance, measured flows, and reviewed information provided by the agencies related to the engineering design and historic water quality and flow data. Based on all of this information OSMRE is able to provide the respective agency with recommendations and where applicable an improvements plan to rebuild the entire system or replace specific components of a system to improve the treatment effectiveness and minimize future issues. Specifically, PADEP implemented OSMRE recommended improvements to an existing passive treatment system in Keystone State Park located in Westmoreland County in order to improve collection of the mine water and the passive treatment system components to improve the receiving stream.

Engineering Evaluations, Analyses, and Investigations: OSMRE continues to provide engineering support to OSMRE field offices and State regulatory authorities in support of SMCRA. Field investigations and recommendations are provided to assist with citizen complaints, Ten-Day

Notices, and Deficiency Letters. Site investigations are performed to obtain field data to support engineering evaluations and analyses for slurry impoundments, oversight studies, and off-site impacts resulting from mining activities. Engineering support is provided through evaluations of design calculations, slope stability analyses, soil mechanics, surface water hydrology, seepage analyses, erosion and sediment control, cost estimating, and the preparation of Engineering Reports. OSMRE is currently providing engineering assistance on the following projects in West Virginia, Tennessee, and Kentucky: One slurry impoundment required engineering assistance to address staging issues and slope stability concerns for upstream construction and a proposed downstream buttress. Evaluation of proposed remediation plans continued throughout FY 2018. A request to assess an orphaned impoundment was conducted to ensure stability of the structure and consistency with the approved permit. OSMRE provided recommendations to address short term deficiencies prior to conducting reclamation of the site. OSMRE also provided engineering support by evaluating engineering aspects of an experimental practice, at two sites, involving “weep berms” which convert point source discharges to non-point discharges. OSMRE also provided engineering support by evaluating engineering aspects of experimental practices involving retention of highwalls at a site in Kentucky with commercial development included in its post mining land use, and at a site in West Virginia proposed for conversion to a firing range by the West Virginia National Guard.

Coal Seam Fire Delineation: OSMRE continues to assist States and Tribes in the use of the FLIR (Forward Looking Infrared) camera to delineate the extents of underground mine fires, burning coal seams, and burning stock- and waste-piles. Burning coal causes a multitude of problems ranging from minor (the smell of burning coal) to life threatening (mine subsidence or forest fires) and has environmental consequences (e.g., particulate and other air emissions). The FLIR camera is a part of TIPS’ equipment owned by OSMRE and loaned to States and Tribes throughout the Nation. Use of the FLIR camera to delineate the extents of burning coal seam helps States and Tribes calculate the extent of the problem and derive solutions to address both present and future problems. OSMRE is also investigating the viability of emerging technologies in this area; in particular, OSMRE is evaluating devices that can be paired with smart-phones to obtain infrared imagery with these pervasive devices. OSMRE is also developing the technology and protocols for using drones to obtain infrared imagery for use in identifying mine fires.

c. National Mine Map Repository

OSMRE maintains the National Mine Map Repository (NMMR), authorized under the former U.S. Bureau of Mines and subsequently transferred to OSMRE in the mid-1980s. This repository, located in OSMRE’s Appalachian Regional Office in Pittsburgh, Pennsylvania, maintains the only National inventory of mine maps and includes more than 181,000 abandoned coal and non-coal underground mines from throughout the United States. These maps, and the associated information, are used to fulfill customer requests for unique information that can range from rare maps for small projects to National collections for large interstate infrastructure projects such as high speed rail or electricity transmission lines. The maps bring great value to any project that depends on knowing the subsurface conditions of the earth for infrastructure design or public safety projects. Underground voids resulting from past mining have the potential to induce subsidence damage to homes, businesses, infrastructure, and to endanger underground miners. NMMR customers include State regulatory and reclamation staff, local government agencies, developers, engineering and mining companies, architects, universities, law firms, insurance companies,

environmental consultants, pollution control boards, realtors, law-enforcement agencies, historical societies, drilling companies, and homeowners. The NMMR also provides scanning of mine maps for its clients; these maps are then placed into the NMMR archives. Receipts from the sale of maps and charges for NMMR research services are minimal and support the program.

The NMMR continues to pursue the acquisition, digitizing, geo-referencing and archiving of mine maps located throughout the United States. During FY 2018, OSMRE significantly increased collection of Colorado, Kentucky, Pennsylvania, and West Virginia mine map scans and brought on four summer interns to increase production to fully utilize state of the art scanning equipment and complete digital records. Through this effort, the NMMR increased the archives by scanning 3,029 new mine maps. In FY 2018, the NMMR database became searchable by the public. New software has been purchased to enable timelier scan processing. During FY 2018, the NMMR received 223 client requests consisting of a total of 5,408 mine maps.

d. Coal Information Management System (CIMS)

Coal mine operations need a convenient, efficient and cost effective method of applying for, and monitoring the status of, permits issued under SMCRA. While some States have fully integrated electronic information systems that provide for this, many, including the Federal Government, do not. In an example of State and Federal collaboration and cooperation, OSMRE has entered into a cooperative agreement with the Montana Department of Environmental Quality (DEQ) to upgrade and modernize the Montana and OSMRE systems as well as provide the ability for other States to adopt the system at no or low cost, if they so choose. Under CIMS, mine operators will be able to plan and monitor multiple phases of applications and permits in an interactive, geospatial manner not possible with traditional, paper-based processes. The system will automate the workflow between operators and regulatory authorities and provide accountability for all parties at all stages of the process. The system and individual applications are designed so that the SMCRA States, Federal and potential Tribal regulatory programs will have the ability to modify the system to fit their unique needs achieving economies of scale for cost savings and improved effectiveness.

In FY 2018, Release 1 of the electronic permit system (ePermit), an application within CIMS, was developed, tested, underwent final development, and was deployed for OSMRE's Western Regional Office. Release 2 of ePermit is currently under development, with a target deployment in late 2019. This Release will provide enhanced capability to meet Federal-specific rules in the Western and Appalachian regions. In FY 2020, the Coal App, another application within CIMS, will be developed and tested. This application will be used to track regulatory timeframes, issue assignments, and report on permit, bond, contact, revision, and enforcement information.

e. Technical Innovation and Professional Services (TIPS)

The goal of TIPS is to provide State, Tribal, and OSMRE personnel with a comprehensive set of analytical tools to aid in technical decision-making related to regulatory and reclamation processes. The services provided focus around off-the-shelf scientific and engineering computer software and technical hardware supported by OSMRE in partnership with the States and Tribes. This technical assistance has grown from a few applications available on a single specially designed shared workstation, to a suite of software on each user's desktop computer. TIPS hardware is available

for loan to SMCRA States and Tribes to advance reclamation projects Nationwide.

TIPS is a National program that continues to research and apply emerging technologies to SMCRA workflows. Currently, TIPS assistance consists of providing commercial software applications and hardware to State, Tribal, and OSMRE offices at considerable cost savings by sharing the commercial licenses for the software via the Internet and OSMRE Wide Area Network. The 27 commercially available software applications cover a wide range of regulatory and AML subjects. The customer base covers over 90 State, Tribal, and OSMRE office locations throughout the country – about 2,000 users.

The TIPS suite of scientific, hydrologic, and mapping core software aids the technical decision-making associated with: (1) permit reviews, (2) performing cumulative hydrologic impact assessments, (3) quantifying potential effects of coal mining, (4) preventing acid mine drainage, (5) quantifying subsidence impacts, (6) measuring revegetation success, (7) assisting in the design of abandoned mine lands projects, and (8) providing the scientific basis for environmental assessments and environmental impact statements.

Demand for TIPS tools and support continues to increase, especially in geospatial data, and mobile computing tools for field use. TIPS is offering more on-site training to accommodate the use of mobile computing devices by inspectors. Mobile computing allows inspectors to be more efficient in the field in resolving issues with primacy State staff and industry. TIPS software users in States, Tribes and OSMRE logged into TIPS core software servers to check out licenses to aid in the permitting process and achieve abandoned mine land reclamation.

Examples of TIPS related activities include:

GeoMine Project (Geographic Information System): GeoMine was made available to the public in December 2016 and includes SMCRA-oriented data for geology, soils, and hydrology from multiple Federal and State agencies. In FY 2018, OSMRE continued to collaborate with the DOI Cloud team to host GeoMine geospatial data services through a secure, FedRAMP-approved vendor. Several SMCRA digital datasets that were “GeoMine-ready,” included Wyoming, Montana, and Utah mine locations, were loaded into the database.

GIS Mobile Computing: In FY 2018, OSMRE expanded the use of field tablets that can display and collect geospatial data while at the mine site. The base data for the systems comes from GeoMine and an OSMRE-hosted Imagery Server allowing field personnel to display data along with their Global Positioning System (GPS) location. Data collected in the field is synchronized to the GIS server and was made available to anyone in the OSMRE network via a web map. The lessons learned during the FY 2018 field season resulted in streamlined workflows and in FY 2019, mobile computing use will continue to extend into additional OSMRE locations, States, and Tribes.

Emerging Technology Testing (Mobile Computing Devices): Widespread adoption of smartphone and tablet technologies within the general population over the past few years has greatly enhanced the technical capabilities and adaptability of State, Tribal, and OSMRE staff. Success of previous efforts toward testing of mobile devices, and training of inspection field staff in their use was often limited due to the steep learning curves associated with those devices. The personal adoption and familiarity with smartphones has given field staff more confidence in their ability to learn and

productively adopt technology associated with smartphones (various apps and Bluetooth connected devices). OSMRE staff has been working to test the functionality and effectiveness of various GPS, laser measurement, water testing and infrared devices that are smartphone compatible.

Emerging Technology Testing (Survey123 Forms): Survey123 is a simple and intuitive form-centric data gathering application that makes creating, sharing, and analyzing surveys or geospatial dataset possible in just few steps. Survey123 forms are designed to answer questions; geo point locations, select from prepopulated answers, show more options based on previously answered question, take geo tagged pictures, and record other useful attributes. The forms can be submitted as completed in realtime or later at the user's convenience. The data generated from Survey123 can be used in other GIS Apps or software platforms such as ArcMap, ArcGIS Pro, Global Mapper, AutoCad, and more.

Emerging Technology Testing (UAS, Photogrammetry. Cloud-based Data Processing and Ground-Based LiDAR Scanners): Rapidly evolving technologies in the last few years include the wide-spread adoption of Unmanned Aerial Systems (UAS) throughout the Nation. An effort has been made in cooperation with the DOI Office of Aviation Services (OAS) to test the applicability of UAS technologies in the field in relation to SMCRA activities. From FY 2010 – FY 2018, UAS were used to fly missions over active coal mines and AML sites in all OSMRE regions. OSMRE procured a number of UAS for OSMRE office staff. Current efforts are underway to procure additional drones, providing training for new drone pilots, and testing various types of cameras such as multispectral and thermal sensors. UAS data have been proven effective in assisting site inspectors in the field, as well as allowing collection of georeferenced imagery that can be used for advanced data processing for site design work for AML. Photogrammetry software has been utilized successfully to create fully rendered surface models taken from satellites, manned aircraft, unmanned aircraft, and ground- based imagery. Cloud-based data processing of UAV data and imagery is being piloted through the DOI GeoPlatform to realize efficiencies of server-side processing of large datasets. Ground-based LiDAR scanners are also being used in conjunction with these photogrammetric models to allow for accurate surface modeling for enforcement and reclamation design. FY 2018 SMCRA State projects using this LiDAR technology have been conducted in Utah, Colorado, Kentucky, and New Mexico.

ArcGIS Online: In 2018, the ArcGIS Online web mapping system was made available to SMCRA States. Twenty-seven States are participating in the web mapping system allowing States and OSMRE to share geospatial data. In 2018, the system use expanded into additional work groups at the State level performing Title IV and Title V projects.

f. Applicant/Violator System (AVS)

The AVS is a National information database OSMRE maintains to support many types of research and program efforts, but primarily it supports permit eligibility determinations under section 510(c) of SMCRA. As part of the permit review process, State and Federal regulatory authorities use the information contained in the AVS to evaluate if an applicant for a mining permit or AML contract has outstanding or unabated violations in order to determine the applicant's eligibility to receive a mining permit to engage in surface coal mining operations or receive an AML reclamation contract.

During FY 2018, the AVS Office processed 627 requests for data evaluations from State and Federal regulatory authorities and State abandoned mine land program officials to assist in identifying permit and AML-project eligibility problems.

In FY 2018, the AVS Office also facilitated the collection of \$3,739,632.82 from entities trying to remedy unabated Federal civil penalty and reclamation fee violations tracked in the AVS.

In line with the Department's intent in pursuing IT efficiencies, the AVS's virtualized database uses Cloud infrastructure services from a third-party contractor who supplies all hardware and maintenance support. The AVS office will continue to work with system users to identify and implement system improvements during FY 2019. To ensure that customers can continue to rely on accurate data and a stable environment to support their efforts with implementation of section 510(c) of SMCRA, OSMRE's AVS staff will continue to conduct data studies in FY 2019 and FY 2020. These studies will ensure regulatory program staff enter and maintain permit and violation information in the system in accordance with regulations and data standards.

The AVS Office staff provides services to customers, including regulatory authorities, the coal industry, citizens groups, and other Federal agencies. Some of the services provided include: an ongoing notification process for OSMRE and our State regulatory partners in identifying potential bankruptcies; financial analysis; assistance in interpreting AVS data; updating information in the AVS for coal businesses that mine in more than one State; providing system training to users; and providing investigative assistance to regulatory authorities on complex ownership and control issues.

Customer surveys are used to document the responsiveness of AVS services provided to its customers. During FY 2018, the AVS Office received a customer satisfaction rating of 99 percent with a returned survey rate of 52 percent. OSMRE attributes the high 99 percent customer service rating to a shared conviction by all the staff that responding to customers' needs in a timely manner is the AVS office's primary business.

2. Technical Training

Technical Training provides OSMRE, State, and Tribal staff the necessary information and skills to implement the surface mining reclamation and enforcement program. This request includes \$2,798,000 and 26 FTE for this program activity. The various training program components are explained below.

a. National Technical Training Program

OSMRE established the National Technical Training Program (NTTP) in 1985, recognizing the need for an ongoing educational program to increase the technical competence and professionalism of Federal, State, and Tribal personnel. The program delivers training related to permit approval, bond release, reclamation, and enforcement. The training serves to build and update technical expertise and fosters consistent application of standards. Training is provided in each of the disciplines involved in implementation of SMCRA, which include chemistry, geology,

engineering, hydrology, blasting, agronomy, and botany.

All aspects of the program from identification of needs through course development and presentation are cooperative efforts of State, Tribal, and OSMRE offices. There is an economy of scale achieved by the pooling of State and Federal resources that allows instruction in a wide variety of subjects each year for all State, Tribal, and OSMRE programs.

Meeting Office Specific Needs of Mining and Reclamation Staff through Special Sessions: In addition to regularly scheduled FY 2018 courses, NTTP presented the following special sessions: Blasting and Inspection-81, Blasting and Inspection-82, Blasting and Inspection-State Park, Blasting and Inspection-State Park-1, Blasting and Inspection-83, Blasting and Inspection-84 and Blasting and Inspection-85. All Blasting and Inspection Special Sessions were held in various Kentucky locations with a total of 157 students trained. In addition, Coalfield Communications was held in Window Rock, AZ, with 22 students trained and Mine Gas Safety and Investigations in Pikeville, KY with 13 students trained.

Course Enhancements: The Wetlands Awareness course was enhanced to include differing regional site specific needs that produce on-the-ground results. Revisions to the AML Dangerous Highwalls addresses varying regional field conditions, AML Realty addresses updated regulations and current policy changes and Soils and Revegetation addresses student needs with current updated procedures necessary to address soil enhancement and stabilization.

Plans for FY 2019 and FY 2020: NTTP received 1,577 requests for spaces in FY 2019, and anticipates it will receive additional requests for special sessions during the year. To keep travel costs down and to provide the maximum experience of field conditions most like those that students work in, courses will be scheduled as close to home offices as possible in both FY 2019 and FY 2020. In FY 2018, courses were held in 27 locations in 11 States.

Annual Program Planning to Identify Training Needs: Each spring, OSMRE conducts a Training Needs Survey for the upcoming fiscal year to determine the training needs of the almost 2,000 State and Tribal regulatory and reclamation staff, as well as over 400 OSMRE regulatory and reclamation staff. NTTP analyzes the annual survey results to determine if there is sufficient interest to justify a course, and if so, how many sessions of the course are needed. Students are assigned to classes that are closest to their office to minimize travel costs and to provide students with field experience most similar to their geographic working conditions. The number of requests for courses usually exceeds the number that NTTP can offer. Students who are not assigned to classes are put on a waiting list. Those on the waiting list are notified 30 days prior to class if space becomes available. To address changing on-the-ground needs, NTTP staff continues to work with offices to meet subject specific needs that arise subsequent to the Needs Survey. To assure that students are receiving the latest technical and programmatic information, NTTP continually reviews courses based on student, supervisor, and instructor feedback, and revises or add courses accordingly in consultation with the NTTP Steering Committee.

Course Revisions: FY 2019 and FY 2020 course revisions are planned for AML Design Workshop: Dangerous Highwalls, AML Reclamation Projects, Applied Engineering Principles, Bonding: Administrative and Legal Aspects, Bonding: Cost Estimation, Historical and Archaeological Resources, AML Realty, Permitting Hydrology, Quantitative Hydrology, SMCRA

and ESA, Soils and Revegetation, Underground Mining Technology, and Wetlands Awareness.

On Line Program Planning: FY 2019 and FY 2020 planning includes development for on-line components of the Underground Mining Technology and Wetland Awareness courses as appropriate, and also a Basic Mining Related Chemistry course to serve as a pre-requisite to the Acid-Forming Materials courses. Once revised, the Basic Inspection Workbook and Principles of Inspection/SMCRA will be online also.

b. TIPS Software Application Training

The tools that TIPS provides to State, Tribal, and Federal offices ensure that all agencies with SMCRA responsibilities are using the same advanced software and hardware tools to conduct the business required by the Act. TIPS offers more than just software and hardware; the program also provides specialized training to use these tools in mining and reclamation. The TIPS Training Program is a collaborative effort among OSMRE, States, and Tribes. Course developers and instructors are reclamation experts who use TIPS software to solve a wide-range of complex permitting, enforcement and abandoned mine land problems. Although most of TIPS tools are off-the-shelf applications, TIPS training is tailored exclusively to mining and reclamation uses. TIPS courses are delivered on-site at the customer's request, and in training centers located in OSMRE's offices in Denver, Colorado; Alton, Illinois; and Pittsburgh, Pennsylvania.

In FY 2018, the TIPS training program received a customer satisfaction rating of 98 percent, meeting the annual GPRA goal. Twenty instructor-led classes were held in FY 2018 with 234 students completing class sessions. Additionally, 26 students attended two on-line self-study training classes sponsored by TIPS, bringing the FY 2018 total to 260 students. Three of the 20 on-site training classes were conducted at State office locations to meet the specific training needs of particular groups of students throughout the SMCRA community. In FY 2019, TIPS plans to hold 20 instructor-led classes (including one State office special session in Virginia), and two on-line training courses. Additionally in FY 2019, there are two course revisions planned: 1) ArcGIS Spatial Analyst for Mining and Reclamation and 2) Modeling and Analysis with Groundwater Vistas. Also, there are two course developments planned: 1) Introduction to Remote Sensing and 2) Collector 200.

While many TIPS courses are facilitated by an instructor in a traditional classroom, the TIPS Training Program continues to actively expand online opportunities and provide "just-in-time" training resources for our customers. Over 100 online courses are available through the TIPS Virtual Campus and ESRI, which is the world leader in GIS modeling and mapping. TIPS utilizes its Virtual Campus and continues to educate our instructors on techniques to teach in an on-line environment.

c. Regional/Site Specific Training

OSMRE regions also conduct courses and workshops at OSMRE, State and Tribal locations to address specific needs. The OSMRE regions provide specific, on-the-job training on topics such as: technical software applications, field equipment, blasting certificate update training, grants management, how to prepare and/or process State program amendments, GIS data collection, performance bond cost estimation, and conducting AML project design. OSMRE provides these

classes on short notice (usually 1 to 3 months) and tailors them to the specific needs of the audience.

Oklahoma Mobile Computing OTJ Training: OSMRE Tulsa Filed Office (TFO) and Oklahoma Department of Mines (ODM) requested for an on-the-job (OTJ) training on “ESRI Collector” application in January 2018. Collector is a simple mobile GIS app that allows users to collect and update geospatial information in the field using various types of smart devices. MCR’s mobile computing expert provided the training at TFO office during the week of February 26, 2018.

ODM New Biologist OTJ Training: ODM requested a training from MCR Natural Resources Specialist for a newly hired biologist. The OTJ training was conducted at the State field office in Wagner, OK during the week of March 12, 2018 and consisted of topics covering SMCRA, permit review, 1996 Biological Opinion, Endangered Species Act, and other Fish and Wildlife related issues.

Site specific classes allow State, Tribal and OSMRE managers to rapidly respond to changing technology and workforce. OSMRE plans to continue providing this specific training in FY 2019 and FY 2020. With rapidly developing technologies in Unmanned Aerial Systems, photogrammetry and terrestrial scanning, OSMRE expects the requests for specialized training to increase over the next few fiscal years. As the varying programs acquire their own systems in these fields, training on operation, data collection, processing and using the results in enforcement processes will be essential to the efficient enforcement of SMCRA in coming years.

In particular Statewide training of blasting will be needed in West Virginia and Kentucky. Until recently, blasting inspections were conducted by blasting specialists. These duties have been transferred to the inspection staff as a way to manage dwindling resources. State specific training will ensure that the inspectors have the knowledge and tools to effectively regulate the blasting aspects of coal mining.

Use of narrative standards for the determination of mining impacts has led to the development of specialized stream bioassessment training for field personnel of the States and OSMRE. Knowledge of techniques and early pertinent data collection will lead to better understanding of existing and new narrative standards and protection of the stream and aquatic life. The training entails determination of stream morphology and habitat, collection of macroinvertebrates and preliminary categorizing of insect and other organisms types. Based on several parameters assessed, the condition of the stream can be assigned and possible mining impacts evaluated.

3. Technology Transfer

Technology Transfer is an integral component of OSMRE’s Restoration and Protection business lines providing National support to State and Tribal programs. Technology Transfer is accomplished through a variety of activities. This request includes \$3,258,000 and 12 FTE for these activities. State technical representatives meet frequently with OSMRE regional staff to share resources whenever practicable to resolve regional technical issues. OSMRE sponsors or participates in interactive technical forums, computer applications workshops, and technical seminars to address mining and reclamation environmental issues. OSMRE partners with the States, Tribes and industry to develop technology transfer priorities.

The OSMRE National and regional technology transfer teams evaluate initiatives to encourage networking and information sharing that will result in program improvement or enhancement. OSMRE's Technology Transfer activities bring a new approach to nationwide cooperation and customer service. They encourage the timely and efficient use of our natural resources while protecting the environment.

In addition to activities between OSMRE and States, Tribes and industry, OSMRE has extended Technology Transfer opportunities to other Federal agencies, in particular the Mine Safety and Health Administration (MSHA). When seats are available in OSMRE training classes they have been made available to MSHA. OSMRE also informs MSHA representatives of funded Applied Science projects, and invites their participation in site and laboratory visits; and asks for their comments regarding conduct and results of these studies.

Mid-Continent Roadshow: A number of years ago, OSMRE initiated and performed a series of technology transfer events (roadshows) for mid-continent States focusing on delivering the latest and innovative SMCRA related technology information to potential end users. In FY 2018, OSMRE decided to revamp the roadshow concept and conducted a roadshow on July 17, 2018 at Alabama AML office in Irondale, AL. Employees from OSMRE, Alabama title V program (ASMC) and Alabama AML attended the session. OSMRE staff demonstrated equipment/tools and provided talks on topics covering UAS, GNSS GPS receivers, Global Mapper software, Bathymetric Survey, LiDAR and other remote sensing image applications, and Borehole camera.

2018 American Society of Mining & Reclamation (ASMR) Conference: OSMRE staff attended the 35th annual ASMR conference held on June 3-7, 2018 in St. Louis, MO. During the event, staff members from several OSMRE offices managed the OSMRE booth. The conference attendance was around 200 and included exhibitors.

a. Technology Development

One of OSMRE's most important missions is to advance and transfer technologies that will improve the effectiveness and efficiency of the science of mine land reclamation. Advancement of this technology will result in better mining and reclamation practices, and provide for better science-based decision-making. OSMRE will continue to advance technologies and practices specific to coal mine sites for more comprehensive ecosystem restoration, including reforestation and reclamation using native vegetation and plant habitat.

During FY 2018 OSMRE developed and implemented a new, more comprehensive SOP for the program, and updated guidance and proposal solicitation documents. This will result in a much more transparent and better documented process, particularly regarding evaluation of proposals. In addition, OSMRE continued to track the progress of active projects.

b. Technology Transfer and Publications

Technology Transfer is accomplished through a variety of activities including: conducting workshops and technical forums; publication of workshop and forum proceedings, handbooks, and other materials; maintenance of the OSMRE technical library and various information websites.

Examples of activities include:

Reforestation: OSMRE continues its effort to encourage proper reforestation practices to increase the amount of mined land reclaimed as healthy, productive forests. The reforestation initiative effort has resulted in not only increased use of the Forestry Reclamation Approach (FRA), but also technical and policy symposia and a reforestation website to explain the methods and benefits of reforestation. The Appalachian Regional Reforestation Initiative (ARRI) team members give presentations at professional meetings, and the 33-member Science Team (made up of university researchers from across the country and members of the American Bird Conservancy, The American Chestnut Foundation, the U.S. Geological Survey, and the U.S. Forest Service) publish bulletins on state-of-the-art reforestation practices. In August 2018, ARRI brought together landowners, industry representatives, environmental groups, researchers, regulatory personnel, and citizens groups to the 12th annual Mined Land Reforestation Conference in Indiana, Pennsylvania, to learn about advancements regarding the use of the FRA to reclaim coal mine sites. In FY 2018, ARRI partners organized over 1900 volunteers to plant approximately 400,000 trees on post-bond release mine sites across Appalachia. The volunteers learned about planting trees using FRA and the positive environmental and economic impacts of forests in their State.

Workshops and Forums: National and regional workshops and forums facilitate the exchange of information between technical experts in the mining and reclamation fields, and also communicate that knowledge to the wide audience of regulators, citizens and mining company officials. OSMRE plans to hold workshops on issues such as bonding, water quality, gas wells in coal mining areas, stream restoration techniques, geomorphic reclamation, protection of endangered species, etc. OSMRE has formed a team that is working to develop and implement a strategic approach to technology transfer, taking advantage of new and emerging technologies in addition to more traditional approaches. In particular, OSMRE is currently updating technology development and transfer web pages of the OSMRE website to include hosting of webinars; providing access to presentations from conferences, workshops, forums, and webinars, and marketing upcoming events using various forms of social media, as well as a newsletter.

Examples of National and regional events that occurred in FY 2018 were OSMRE's participation in the American Society of Mining and Reclamation conference held in St. Louis, Missouri and the joint National Association of Abandoned Mine Lands Programs and National Association of State Land Reclamationists conference held in Williamsburg, Virginia. One example of National and regional events that occurred in FY 2018 is OSMRE's presentation at the 2018 National Association of Abandoned Mine Land Program (NAAML) conference held in Williamsburg, VA during the week of September 9, 2018. MCR staff presented a paper titled "Occurrences of Artesian Net Acid Mine Drainage in the Western Interior Coal Field and Implications for Passive Treatment." The paper identifies the principle difficulties with implementation of AMD passive treatment systems in the Western Interior Coal Field of the Mid-Western U.S. The paper also provides several promising technologies that have been successfully implemented in the Western Interior Coal Field. The study was conducted in coordination of OSMRE and State agencies (OSMRE/MCR, Oklahoma Conservation Commission – AML program, Arkansas Department of Environmental Quality, and Iowa Department of Agriculture and Land Stewardship).

Reports, Forums and Workshop Proceedings: OSMRE makes available on their website various technical publications. The agency publishes proceedings, reports and event notices in paper copy,

on CD/DVDs, and over the Internet to reach the widest audience possible

OSMRE Technical Library: OSMRE maintains a National Technical Library in its Western Region Office in Denver, Colorado. The Library provides access to technical, scientific, and legal information for the bureau, as well as the States, Tribes, industry, citizen groups, and the public through a variety of services including: reference assistance, technical research, document delivery, and the dissemination of critical current awareness information.

c. Educational Outreach and Partnerships

To make the public and students aware of OSMRE's responsibilities and to create a conservation stewardship legacy, OSMRE staff provides educational outreach to science teachers associations, science classes, educational fairs, Earth Day events, career days, foreign visitors, grassroots organizations, and professional associations and societies. Additional outreach is provided through publications and distribution of forum proceedings. Outreach efforts will continue in FY 2019 with OSMRE's participation in local activities supporting such events as college and university seminars, high school career days, and primary grade school presentations that provide age-appropriate information and workshops about environmental stewardship and promote careers in science, technology, engineering, and math to over 10,000 students across the country.

University Partnerships: Minority Higher Education Program: OSMRE works to build mutually beneficial partnerships with minority serving colleges and universities under the OSMRE Minority Higher Education Program (MHEP). OSMRE provides guidance and direction on these projects to ensure that the intended results are achieved. OSMRE also collaborates with our MHEP partners on training and educational programs.

In addition to traditional training within the SMCRA community, OSMRE has been involved in a collaborative partnership with Adams State University (ASU), a Hispanic Serving Institution, in Alamosa, Colorado, since November 2009. OSMRE and ASU had a signed 5-year Memorandum of Understanding (MOU), August 2012 to August 2017, during this time the parties successfully implemented the three core critical initiatives: ASU Curriculum/Student Development, OSMRE Training Program Development, and OSMRE Involvement at ASU Campus. Several examples include: 1) ASU increased efforts to add electives/coursework elements that bring practical working skills to students. Five students completed internships assisting OSMRE map conversion processing of hard copy mine permit data into digital geo-referenced mine data for inclusion in the GeoMine web application database; 2) Capstone projects where ASU students learn SMCRA concepts outside of the traditional "paid internship" that involved the ASU Art Department designing and building a Mining Model for OSMRE to use for public outreach; 3) The new distance learning education and course development opportunities for OSMRE where ASU provided online course development expertise and offered a "Best Practices of Distance Learning" online course to our instructors; and 4) Participation from OSMRE at several ASU career fairs, as well as donating OSMRE excess equipment (plotters, monitors, and Global Positioning System equipment) to the ASU GIS Department. These partnerships will continue to support government and academia as they contribute their joint efforts to engage youth in the outdoors and increase student and recent graduate opportunities for training and exposure to science, technology, engineering, and mathematics careers.

In FY 2018, OSMRE staff attended career fairs and National conferences at several Minority Serving Institutions (MSI) including three Historically Black Colleges/Universities (HBCU) career fairs, and the National conferences of the Hispanic Association of Colleges and Universities (HACU), the Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS), the White House Initiative on HBCU's, and the Society of American Indian Government Employees (SAIGE).

University Internships: In FY 2018, OSMRE participated in the Hispanic Association of Colleges and Universities (HACU) Federal Internship Program. A geology student from the University of Puerto Rico successfully completed a 15 week internship in the fall of 2017 with the Pittsburgh Field Division.

Student Collaborations: One member of PTSB staff, along with other OSMRE employees from the Western Region, attended and presented at this year's Girls in the Middle 20th annual event at Otero Junior College (Hispanic Serving Institution). This annual event provides girls in the middle grades (6, 7, and 8) with the opportunity to explore different careers in the STEM (Science, Technology, Engineering, and Math) fields to consider for their future. OSMRE has partnered with Otero Junior College in LaJunta, Colorado for this event that was held on March 2, 2018.

Throughout FY 2018, OSMRE staff conducted an ongoing partnership with students from L&N STEM Academy in Knoxville, Tennessee, providing coursework related to science and engineering activities.

TECHNOLOGY DEVELOPMENT AND TRANSFER

2019 Planned Program Performance

In 2019, in addition to activities previously mentioned, the planned activities in Technology Development and Transfer include:

- OSMRE will continue to provide technical assistance to States and Tribes, making use of emerging technologies for field data collection, and in-house information processing capabilities.
- OSMRE is working with the Pennsylvania Department of Environmental Resources, Bureau of Abandoned Mine Reclamation, on the Isabella Mine site to establish a passive treatment system to remediate mine drainage discharges, reclaim abandoned coal refuse piles, and partially dewater a large impoundment to prevent flooding of a nearby road and ensure public safety. This project is a combination site with both Title IV and forfeited Title V lands.
- OSMRE is providing technical support to the West Virginia Department of Environmental Protection in conjunction with the Fish and Wildlife Service to create Protection and Enhancement Plans for aquatic and terrestrial species throughout the State. This proactive effort will minimize concerns of the potential stream sediment from surface mines impacting two threatened/endangered species of crayfish and possible impacts on other aquatic and terrestrial species.
- OSMRE is partnering with “The Wilds”, an animal park for rare and endangered species in southcentral Ohio. The 9,000 acre park has large areas of surface mined lands with acidic metal laden discharges and unsafe earthen dam impoundments that originated prior to enactment of SMCRA. OSMRE specialists are working to determine the best means by which to dewater the impoundments and passively treat the mine water. This is a multiyear project with geologists, hydrologist, engineers and GIS specialists from the Appalachian Region involved.
- The OSMRE Blaster Certificate Coordinator will continue to coordinate blaster certificate activities with State personnel, Federal agencies (MSHA, OSHA, and ATF) and professional organizations (International Society of Explosives Engineers, Institute of Makers of Explosives and National Fire Protection Association).
- OSMRE, States, and Tribes will continue to work on development of e-Permitting solutions for their legacy coal permitting systems. Strides have been made on this issue and will continue in FY 2019.
- OSMRE will continue evaluating emerging technologies, including smart-phone and tablet accessories, unmanned aerial systems, and developing workflows to process data obtained. Results of these evaluations and workflows will be disseminated to OSMRE, States, Tribes, and industry by reports, and presentations at conferences, workshops, symposia, and meetings.

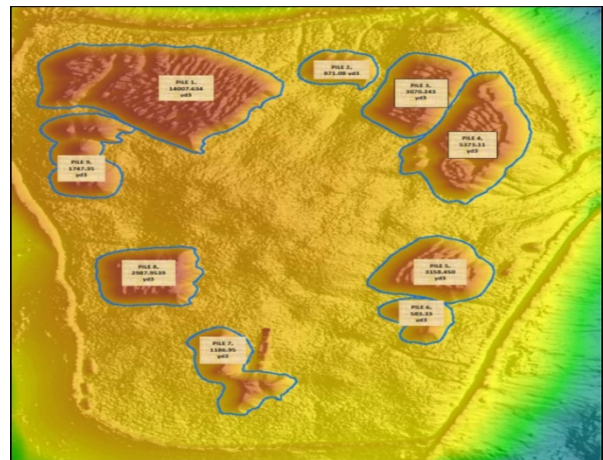
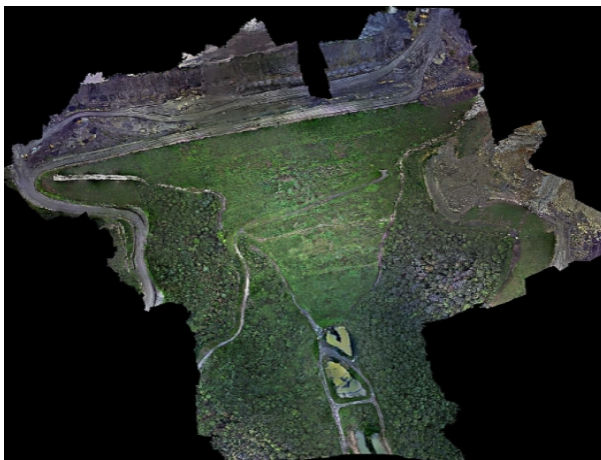
- NTTP and TIPS will continue to develop course materials and topics that are relevant, useful, and impressive. Course revisions are planned for 14 NTTP courses. NTTP and TIPS will continue to recruit instructors from the States, Tribes, and OSMRE who are confident, knowledgeable, and fluent in the subjects presented, articulate in answering questions, thorough, concise, and accurate in presentation methods.
- OSMRE will continue to cultivate a relationship with MSHA, with goals of reaching consensus on technical issues, and cooperation in areas where jurisdictions may overlap. Significant progress has been made, and will continue.
- Continue to monitor 13 applied science projects and 4 technical investigation projects, reporting results as available.
- ARRI partners will organize 2,000 volunteers to plant approximately 400,000 trees on post-bond release mine sites across Appalachia.
- Conduct technical training and TIPS courses in accordance with revised schedules and available funding levels.
- Expand the OSMRE Technology Development and Transfer presence on the OSMRE website. Implement a strategic Technology Transfer process, and market Technology Development and Transfer presence and products using social media and a newsletter.
- Issue a solicitation for Applied Science proposals that will help to use science-based solutions to mining and reclamation issues. OSMRE will select the best proposals to achieve the highest valued outcomes. Funded proposals will continue to be tracked to verify value of results.
- Continue to expand partnering opportunities for students and recent graduates in science, technology, engineering, and mathematics. OSMRE staff plan to attend outreach events at several K-12th grade schools and educational organizations. In FY 2019, OSMRE staff will participate in the USA Science and Engineering Festival in Washington, D.C. OSMRE staff will conduct a SMCRA overview with Biology students at the Indiana University of Pennsylvania. OSMRE staff will attend GIS day at Lindenwood University in Saint Charles, Missouri. OSMRE staff to attend a science fair at Denver Public Schools.
- The new ArcGIS/SQL database for the National Mine Map Repository, which allows for more efficient data entry and retrieval of mine map information, was made available in FY 2018 for the public. Improvements to this database are scheduled to be made in FY 2019.
- OSMRE/MT DEQ completed e-permit software Release 1 in FY 2018; an improved second release of the software will be available in FY 2019.
- Serve customers needing information for our National Mine Map Repository (in FY 2018 NMMR served 223 clients).

- Increase the National Mine Map Repository’s document collection by 6,100 new maps.
- In FY 2018, the AVS Office managed a contract that enhanced certain features of the AVS to promote data accuracy and system usability. All major changes to the system have been successfully implemented and the remaining administrative portions of the contract are projected to be completed ahead of schedule in the first quarter of FY 2019.
- OSMRE will make the long-awaited revised version of AMDTreat available to users and continue to upgrade the modules to reflect the newest treatment technologies. We will provide assistance and training to assist the users in the application of the advanced software.

2018 Program Accomplishments

In 2018, in addition to accomplishments previously mentioned, the major accomplishments in Technology Development and Transfer include:

- Conducted State specific blasting inspection training for over 200 employees, conducted continuing education training for over 500 certified blasters across the Nation, revised the Blast Log Evaluation Program in Microsoft Excel to gauge compliance with the regulations and evaluate the adverse effects of blasting, maintained the ARblast webpage that continues to be one of the most used OSMRE webpages, hosted monthly “Blasting Technical Chat” conference calls with 15 to 20 participants per month to discuss blasting technology applications in the field, hosted a Blasting Inspectors Workshop with 26 participants from six States, facilitated regulatory discussions at Appalachian Blaster Certification Delegation (AL, PA, KY, VA, MD, IN, OH, WV and TN) meeting, and responded to numerous inquiries for technical information and advice from the public, States, and other Federal agencies.
- OSMRE conducted over 12 Unmanned Aerial Systems flights in the second half of FY 2018. Using this drone technology, aerial imagery, video, digital elevation models, contour maps, and infrared and thermal imagery related to landslides, pit and spoil volumetric calculations, and mine fires for both active and AML operations were created.



Thermal Image of a Coal Stockpile created from UAS data collection

- The Technology Support Division in the Appalachian Region started this new small Unmanned Aircraft System (sUAS) technical chat group to support our SMCRA constituents. Increasingly popular, sUAS is able to take photographs and video with a bird's eye view. The technical chat group was formed to support and encourage discussion among the sUAS users and covers a wide variety of on-the-ground issues that can be explored using sUAS, such as engineering, hydrology, geology, and geography. Also the group shares experiences with the successes, and failures using sUAS hardware and software. Currently over 15 States and OSMRE offices actively participate in the effort.
- Provided technical assistance related to water quality and quantity of mine discharges at various sites in West Virginia, Maryland, Pennsylvania, Ohio, and Tennessee.
- OSMRE continued to provide technical assistance involving analysis of quality control and stability issues at coal mine waste slurry impoundments in Tennessee and Kentucky.
- Appalachian Region Reforestation Initiative (ARRI) partners organized 2000 volunteers to plant approximately 400,000 trees on post-bond release mine sites across Appalachia.
- Expanded the OSMRE Technology Development and Transfer presence on the OSMRE website, implementing a strategic Technology Transfer process.
- Taught a first of its kind for the agency class on aviation safety with more such efforts expected in FY 2019.
- Completed software development and initial testing for e-permitting, Release 1. Release 2 will enhance Release 1 by incorporating Federal-specific rules for Federal Program States and Tribes. Release 2 is expected to be completed in late 2019.
- Developed and implemented a new ArcGIS/SQL database for the National Mine Map Repository, allowing for more efficient data entry and retrieval of mine map information.
- Fulfilled 223 client requests consisting of a total of 5,408 mine maps.
- Conducted educational outreach opportunities regarding the OSMRE mission, coal mining and careers in science, technology, engineering, and mathematics for K- 12th grade students across various schools and educational organizations throughout the country.

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TAB

Financial Management

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FINANCIAL MANAGEMENT

Financial Management Budget Request

(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	2020				2020 Request	Change From 2019 (+/-)
			Fixed Costs (+/-)	Internal Transfers (+/-)	Program Changes (+/-)			
Regulation and Technology	505	505	+2		-2	505	-	
Revenue Management	410	410	+2		-2	410	-	
<i>FTE</i>	2	2			-	2	-	
Grants Financial Management	95	95	-		-	95	-	
<i>FTE</i>	0	1			-	1	-	
Abandoned Mine Reclamation Fund	5,182	5,182	+22	-	-13	5,191	+9	
Fee Compliance	5,081	5,081	+21		-21	5,081	-	
<i>FTE</i>	35	34			-6	28	-6	
Grants Financial Management	101	101	+1		+8	110	+9	
<i>FTE</i>	1	1			-	1	-	
Total, Financial Management	5,687	5,687	+24	-	-15	5,696	+9	
Total FTE	38	38			-6	32	-6	

NOTE: 2018 FTE figures reflect actual usage.

Fixed Costs result of \$24,000 in pay related items.

Summary of 2020 Program Changes for Financial Management

Request Component	(\$000)	FTE
Priority Alignment	-15	-6
TOTAL Program Changes	-15	-6

Financial Management provides resources for OSMRE to carry out its responsibilities through fee compliance, revenue management and grants management.

Justification of 2020 Program Change

Priority Alignment (-\$15,000/-6 FTE): The FY 2020 budget maintains Financial Management operational activities, and aligns OSMRE’s existing staffing and fiscal resources across business lines to optimize fulfilment of OSMRE’s statutory responsibilities and support of administration priorities

OVERVIEW

This Financial Management business line provides resources for OSMRE to carry out its financial management program responsibilities through three activities: fee compliance, revenue management, and grants management.

- Fee compliance covers the collection, accounting, audit and investment of abandoned mine reclamation fees, assistance to operators on compliance matters, and regulatory and policy development on fee compliance issues.
- Grants management includes accounting for and reporting on grants awarded to State and Tribes for Abandoned Mine Land (AML) and regulatory purposes.
- Revenue management involves the accounting and collection of revenue other than reclamation fees, such as civil penalties assessed under Federal citations for mining violations and Federal performance bonds forfeited by coal mine permittees.

The Financial Management business line also provides for United Mine Workers of America Fund (UMWAF) Transfers, which involves reviewing the annual transfer request, supporting documentation, audited financial statements, reconciling true-up from prior-year transfers; estimating future interest earnings; preparing various budgetary estimates and projections; and planning annual audit procedures for the unreimbursed health care expenses for coal miners and their dependents.

Financial Management operations are an integral part of OSMRE's Environmental Restoration and Environmental Protection mission goal areas. State and Tribal grant funding (reclamation and regulatory) disbursement for the administration of regulatory activities and reclamation cleanup projects is managed through this program activity. OSMRE, States, and Tribes fund reclamation project work through the fees collected from current mine operators. The funds are provided through annual mandatory grants provided to States and Tribes. The reclamation projects clean up environmental hazards resulting from past mining operations that degrade land and water resources. The regulatory grants, which are appropriated annually, fund the administration of State regulatory programs that protect people and the environment from adverse effects associated with current mining and ensure the land is restored at the conclusion of mining.

**FINANCIAL MANAGEMENT
ENCOMPASSES:**

Fee Compliance
Grants Management
Revenue Management
UMWAF Transfers

Operational Processes (Program Activities):

As previously discussed, OSMRE carries out its program financial management responsibilities through three program activities: fee compliance; grants management; and revenue management. Financial management also includes activities involved in funding transfers to the United Mine Workers of America Fund (UMWAF). This business line does not include administrative accounting or reporting for appropriated funds.

The outcome of OSMRE's Financial Management program performance is measured primarily by the success of the Surface Mining Program in carrying out the two major missions of the organization – Environmental Restoration and Environmental Protection. The Financial Management business line is an integral part and supports accomplishment of both missions. Workload indicators identified for this business line include the quarterly fee collection reports and fee collection rate for operators reporting coal tonnage, internal audits for fee collection and compliance, and accounting and reporting requirements.

Actions Required to Achieve Annual Goals: OSMRE will use technology and customer service initiatives to achieve compliance and improve processing of collections. This includes using the Internet to ease the coal companies' reporting burden, receive quarterly coal production reports, provide information to companies, and allow companies to make payments on-line. OSMRE will continue to use new and streamlined collection services as they become available and will work with customers and stakeholders to ensure fair and consistent policies.

In FY 2019 and FY 2020, OSMRE will continue to improve its Coal Fee Collection Management System (CFCMS), which OSMRE uses to process and manage coal reclamation fees, compliance audit findings, and civil penalties. CFCMS supports the continued success of the fee compliance program. OSMRE continually looks for opportunities to automate processes and streamline coal operating company reporting through the consolidated coal data reporting system (Single Source Coal Reporting System). OSMRE will also continue to support State and Tribal program operations through the Grants Management activity. OSMRE has over 206 grants and cooperative agreements with the States and Tribes, accounting for over \$873 million.

Resources, Skills, and Technology Needed: To support program activities and to assure the collection of appropriate fees, OSMRE plans to maintain a highly trained cadre of fee compliance auditors, program accountants, and financial systems personnel. OSMRE will use training to ensure that financial management personnel maintain a high level of skill and technical expertise. OSMRE will also continue to use contractors to handle billing, data entry, and appropriate collection functions.

The following section details, by program activity, the funding and FTE resources required to meet the performance measures.

2019 PROGRAM PERFORMANCE

1. Fee Compliance

The fees collected from active coal operators provide the funding used by OSMRE, States and Tribes to restore land and water degraded by past mining practices to beneficial uses. OSMRE collects the fee from active coal operators based upon tons of coal produced. These funds contribute to accomplishment of the Department of the Interior's "Ensure energy and economic security for America" goal by generating revenue and utilizing our natural resources to decrease dependency on other Nations while also supporting employment in the Nation's coal mining regions.

OSMRE's Fee Compliance Program carries out the Surface Mining Control and Reclamation Act's (SMCRA) requirements to ensure coal operators accurately report coal production and pay appropriate reclamation fees. The program goal is to maximize compliance by applying policy and collection procedures fairly and consistently at a reasonable cost. This request includes \$5,081,000 and 28 FTE for the Fee Compliance activity.

In FY 2018, OSMRE's Fee Compliance Program achieved a 99.8 percent collection rate resulting in \$155.5 million in total collections. Collections decreased slightly from FY 2017 due to decreased coal production. By working closely with the industry, the program achieved a 99.5 percent compliance rate for operators filing their tonnage reports. OSMRE maintained a high percentage of permits that filed OSM-1 Reports electronically, at 85.9 percent in FY 2018. During FY 2018, OSMRE also processed 84.4 percent of the coal reclamation fee reports automatically, and 86.1 percent of payments automatically. Further automation of payment processing is constrained by the inability of some companies to use the Treasury Department's Pay.Gov system.

The Fee Compliance Program is comprised of two highly integrated components -- collections and audits -- that work hand-in-hand to maximize compliance, minimize the burden on industry, and ensure the efficient use of resources. For example, key initiatives that these components will pursue in FY 2019 include:

- Maintaining and improving the Single Source Coal Reporting (SSCR) system and the Coal Fee Collection Management System (CFCMS).
- Increasing the use of automation in conducting fee compliance audits to further improve efficiency.

Details of these and other services the collection and audit components provide are described in the following sections.

a. AML Fee Collection

The collection component assures that the AML Fee payment requirements of SMCRA are applied consistently and fairly across the country. In FY 2018, OSMRE collected 99.8 percent of the AML Fees due during the year. Total FY 2018 AML Fee collections were \$155.5 million.

To assist in managing AML Fee collections, OSMRE utilizes CFCMS. This computerized system provides subsidiary accounts receivable and management information needed to manage the fee compliance program. CFCMS is integrated with the Applicant Violator System (AVS) to track new permits from initial permitting through fee reporting. CFCMS tracks AML fee payments by permit number of producing coal companies each quarter. In addition, the system issues quarterly OSM-1 coal reclamation fee reports for industry coal sale reporting and fee computation. The reports are available on-line through OSMRE's E-filing website. Permit information is pre-filled and the system automatically calculates the coal reclamation fees due, based on the data entered by the company. For the permits that are not filed on-line, OSMRE mails a paper reporting package.

On average, over 1,117 permits are reported on OSM-1 reports and processed each quarter. OSMRE uses an internet-based system to allow coal companies to file their quarterly coal production reports electronically. Companies report that the on-line reporting system saves them time and money. The efficiency is evidenced by the fact that 362 companies voluntarily use the E-filing system to report on approximately 959 permits and over 97 percent of the coal tonnage produced nationwide. The system significantly streamlines the reporting process, makes it easier for companies to report on time, reduces errors, and makes it easier for OSMRE to follow-up with companies that have not reported. The system also allows companies to make payment online, using the Treasury Department's Pay.Gov payment method. This feature saves companies time and wire transfer costs, while providing OSMRE with timely information about collections for investment purposes.

OSMRE uses CFCMS to provide the ongoing support for the Fee Compliance Program. The system enables OSMRE to manage the fee compliance process, from permit issuance to mining completion. CFCMS also supports the related financial processes, including fee accounting, payment processing, billing, debt collection, and financial and management reporting. During FY 2018, OSMRE implemented a new SSCR/CFCMS enhancement that enables the system to electronically generate and accept unsolicited OSM-1 forms. Prior to the enhancement, the process to submit an unsolicited OSM-1 form involved printing a blank paper form, manually writing in all key required fields, and reporting via mail. The unsolicited form would also require manual data entry into CFCMS. The process proved to be time consuming and inconvenient to customers, and requests to have the capability of filing electronically were submitted to OSMRE's Finance Division.

With the enhancement, SSCR automatically identifies users permitted to file unsolicited OSM-1 forms, and provides those users the option to re-activate and report on permits previously filed. CFMCS automatically updates all tables necessary to process tonnage and AML fees. The streamlining and automation of the process allows new e-filers, and companies with temporarily inactive permits, to re-initiate their filing process in a more convenient and timely manner.

b. AML Fee Audit

SMCRA requires OSMRE to conduct audits to ensure full compliance with the law's reclamation fee requirements, so funds are available for State, Tribal, and Federal reclamation efforts. To meet that mandate, the AML Fee Audit program is designed to promote timely and accurate reporting

of coal tonnage and to ensure correct fee payments. In addition to conducting a comprehensive audit program, the audit staff also performs other activities to promote compliance; this includes identifying responsible parties for reclamation fee liability on new and transferred permits, providing the information and assistance operators need to comply, and taking appropriate enforcement action when non-compliance occurs.

The audit staff is strategically stationed in locations which minimize travel costs to coal company's recordkeeping locations. Over 70 percent of the audit staff are full time teleworkers, with no bricks and mortar office – significantly reducing general services costs. To ensure quality, audits are performed in accordance with Government Auditing Standards issued by the Comptroller General of the United States, and the continuing professional education and training of OSMRE's audit staff is emphasized in accordance with those standards. The audit program maintains an internal control system and monitors it on an ongoing basis to provide reasonable assurance that the policies and quality controls are suitably designed and effectively applied. This ensures consistency and fairness in the application of SMCRA reclamation fee requirements.

With a highly visible and comprehensive audit presence structured, to ensure all companies are appropriately audited, the small audit staff serves as an effective deterrent to noncompliance. To support the program goal of maximizing compliance, OSMRE auditors will conduct more than 150 reclamation fee compliance audits in FY 2020. In addition to deterrence, audits afford an opportunity to promote compliance by providing direct assistance to the industry on accounting and reporting matters needed to meet their reclamation fee responsibilities. For example, when instances of non-compliance are identified, the auditors thoroughly explain the issues and the corrective actions needed to avoid reoccurrences.

Auditors also provide several other services necessary to achieve a high level of compliance. The following are a few examples of the work planned for FY 2020.

Increasing audit automation: By using an automated audit package designed and developed in-house and applying computer techniques to the data gathering, analysis, and reporting function, the audit staff has been able to maintain a high compliance level despite limited resources. To further improve efficiency, OSMRE will continue to increase the use of computer assisted auditing techniques and work with coal companies to increase the use of electronic transaction files in the audit process.

Examining all permit transactions recorded by regulatory authorities: The audit staff will need to review more than 1,600 newly issued coal mining permits and transactions (transfers and amendments), which can affect the parties responsible for paying fees. In FY 2018, the staff handled 1,647 permit transactions. By continuing these efforts, the program provides significant assurance that all producing permits are identified in a timely manner, and operators are informed of their reporting and payment responsibilities.

Developing necessary revisions to the fee requirements and process: The auditors have the most direct contact with operators and the subject-matter expertise to identify, develop, test, and implement any needed changes. This is part of an ongoing effort to ensure fairness and a level playing field among all operators in fee payment.

Promoting E-government: OSMRE's audit staff has been instrumental in the successful implementation of various E-government efforts. During FY 2020, the audit staff will continue to promote electronic tonnage reporting and fee payment by demonstrating the systems for companies during audits and notifying OSMRE's collection staff of those interested in enrolling in E-filing and Pay.Gov.

Coordinating work with the Internal Revenue Service (IRS): OSMRE will continue working with the IRS to ensure the fee compliance and coal excise tax compliance programs function together more efficiently. SMCRA requires OSMRE to forward audit results to the IRS and both agencies coordinate issues affecting the industry. Overall, there also will be a continued emphasis on improving compliance and customer service in FY 2020 and beyond.

Table 7 shows annual production in tons and fees collected. Table 8 provides a summary of the Abandoned Mine Reclamation fund from 1978.

Table 7 – Deposits to the AML Fund and AML Production Fees
(Production in Millions of Tons) (Dollars in Millions)

	2018 Actuals	2019 Projections		2020 Projections		2021 Projections	
		EIA	OSM	EIA	OSM	EIA	OSM
Production *							
Underground	265	258	266	269	278	263	272
Surface	424	422	397	410	385	403	378
Lignite	63	59	59	52	53	50	51
AML Fees **	\$155.5	\$147.9		\$172.3		\$142.7	

**DOE projections are based on calendar year (CY) projections made by the Department of Energy's (DOE) Energy Information Administration (EIA) Annual Energy Outlook 2018, Reference Case Forecast, Table 67 (Coal Production by Region and Type). OSMRE tonnage uses the last reported production (Fiscal Year 2018) and then increases or decreases based on the percentage increase or decrease in DOE production for each coal type. The OSMRE projections are usually lower because AML fees are assessed on the tonnage sold, used, or transferred while the DOE figures are based on the tonnage produced.*

***AML Fees are calculated based on the OSMRE tonnage estimates multiplied by the applicable current fee rate: \$0.12, \$0.28, and \$0.8 for underground, surface, and lignite, respectively. The calculations are adjusted for moisture content, reduced coal prices and fees, administrative fees and uncollectible fee estimates.*

Table 8 – Summary Status of Abandoned Mine Reclamation Fund
(Dollars in Thousands)

Fiscal Year	Receipts and Interest Income			Appropriations			Transfer To UMWA Health & Retirement Funds	Cumulative Appropriated Balance	Cumulative Unappropriated AML Fund Balance
	Amount	Interest Earned	Cumulative	Amount Appropriated from AML Fund	Footnote	Appropriations from Other Sources			
1978-99	4,984,248	472,032	5,456,282	3,819,485	/1,/2,/3	17,363	192,886	4,012,370	1,443,912
2000	274,297	94,369	5,824,949	195,873	/4		108,960	/4 4,317,203	1,507,745
2001	284,044	103,496	6,212,489	215,038	/5		182,019	/5 4,714,260	1,498,228
2002	287,066	43,278	6,542,833	203,455	/6		90,179	/6 5,007,894	1,534,939
2003	282,555	23,620	6,849,007	190,499	/7		89,858	/7 5,288,251	1,560,756
2004	287,023	45,695	7,181,725	190,591			14,967	5,493,809	1,687,916
2005	293,604	75,017	7,550,347	188,206			66,533	5,748,548	1,801,798
2006	302,992	95,687	7,949,025	185,248			59,004	5,992,800	1,956,225
2007	304,880	105,818	8,359,723	185,393			114,329	6,292,522	2,067,201
2008	286,272	83,764	8,729,759	139,334	/8		100,394	6,532,251	2,197,508
2009	272,764	55,465	9,057,988	142,977	/9		61,224	6,736,452	2,321,536
2010	251,784	55,193	9,364,964	177,502	/10		63,926	6,977,881	2,387,083
2011	259,935	54,881	9,679,781	185,649	/11		57,246	7,220,777	2,459,004
2012	249,725	54,789	9,984,295	247,595	/12		48,430	7,516,802	2,467,493
2013	213,675	36,634	10,234,603	237,544	/13		54,789	7,809,135	2,425,468
2014	202,872	34,928	10,472,403	206,726	/14		12,359	8,028,220	2,444,183
2015	197,973	29,426	10,699,802	208,403	/15		31,803	8,268,426	2,431,376
2016	158,807	32,175	10,890,784	202,356	/16		29,109	8,499,891	2,390,893
2017	159,499	33,922	11,084,205	171,873	/17		32,140	8,703,904	2,380,301
2018	155,475	49,236	11,288,916	232,436	/18		46,257	8,982,597	2,306,318
2019	147,934	54,321	11,491,171	235,372			54,321	9,272,290	2,218,881
2020	145,382	60,098	11,696,651	184,472			60,098	9,516,860	2,179,791
2021	142,741	64,596	11,903,988	184,372			64,596	9,796,001	2,138,160
/1 FY 1988 total does not include \$7M transferred into the fund by supplemental authority, which does not affect the Unappropriated Balance.									
/2 FY 1994 total includes \$7.2M transferred into the fund by supplemental authority, which does not affect the Unappropriated Balance.									
/3 FY 1998 total does not include \$3.2M transferred into the fund by supplemental authority, which does not affect the Unappropriated Balance.									
/4 FY 2000 total includes one-time \$68M emergency appropriation, as well as the annual appropriation of \$41M.									
/5 FY 2001 total includes annual amount of \$102.9M, as well as \$81.6M of the one-time \$96.7M mandated under PL 106-291.									
/6 FY 2002 total includes annual amount of \$113.6M, less \$23.4M returned by UMWACBF trustees mandated under PL 106-291.									
/7 FY 2003 total includes annual amount of \$56M as well as \$33.8M mandated under PL108-7.									
/8 FY 2008 total includes annual amount of \$52M as well as \$87.4M mandated under PL 109-432.									
/9 FY 2009 total includes annual amount of \$52M as well as \$90M mandated under PL 109-432.									
/10 FY 2010 total includes annual amount of \$35.5M as well as \$141.9M mandated under PL 109-432.									
/11 FY 2011 total includes annual amount of \$35.5M as well as \$150.1M mandated under PL 109-432.									
/12 FY 2012 total includes annual amount of \$27.4M as well as \$220.2M mandated under PL 109-432.									
/13 FY 2013 total includes annual amount of \$27.4M as well as \$210.1M mandated under PL 109-432.									
/14 FY 2014 total includes annual amount of \$27.4M as well as \$179.3M mandated under PL 109-432.									
/15 FY 2015 total includes annual amount of \$27.4M as well as \$181.0M mandated under PL 109-432.									
/16 FY 2016 total includes annual amount of \$27.3M as well as \$175.1M mandated under PL 109-432.									
/17 FY 2017 total includes annual amount of \$27.2M as well as \$144.7M mandated under PL 109-432.									
/18 FY 2018 total includes annual amount of \$24.7M as well as \$207.8M mandated under PL 109-432.									
Notes: FY 2019 figures are estimates except for the UMWA transfer. FY 2020 and FY 2021 figures are estimates.									
Annual figures for FY 1978-1999 are displayed in the FY 2015 Budget Justification, Table 9.									

2. Grant Financial Management

This activity accounts for and disburses reclamation and regulatory grants to States and Tribes under OSMRE's Environmental Restoration and Environmental Protection business lines. The grants financial management activity includes the disbursement, accounting, reporting, and recovery of grant funds. This request includes \$205,000 for Grant Financial Management.

Most Abandoned Mine Reclamation Fund (AML) grant activity was made mandatory, and no longer part of OSMRE's discretionary budget, by the amendments to SMCRA enacted at the beginning of FY 2007. Starting in FY 2008, OSMRE has calculated grant distribution based on the amendments to SMCRA included in Public Law 109-432.

Along with the mandatory AML distributions given to the States, OSMRE also distributes mandatory treasury funds to the States as part of the grant distribution. More information is provided in the Permanent Appropriations section of this document.

Table 9 on the following page details the AML Unappropriated Balance as of September 30, 2018, by a description of its allocation.

Table 9 – AML Unappropriated Balance

**Office of Surface Mining
AML Unappropriated Balance
September 30, 2018
Prepared by the Division of Financial Management**

Total Funds to be Allocated: \$2,306,318,146.30

Description of Allocation	Balance as of 10/01/17	LESS: 2018 Appropriation/ Distribution	LESS: 2017 Treasury Funds	LESS: 2018 UMWBF Transfer ^{3/}	Post Appr. & Trans. Balance	Investment Int. 10/01/17-9/30/18	Collections for 10/01/17-9/30/18	Balance As Of 9/30/18
Federal Expense ^{1/}	\$376,540,971.58	(\$43,368,795.00)	\$0.00	\$0.00	\$333,172,176.58		\$31,112,537.70	\$364,284,714.28
Historic Coal ^{2/}	\$1,618,235,860.13	(\$162,073,538.00)	\$114,215,889.00	\$0.00	\$1,570,378,211.13		\$46,668,806.54	\$1,617,047,017.67
Investment Interest	\$150,620,191.32	\$0.00	\$0.00	(\$46,257,312.05)	\$104,362,879.27	\$49,235,675.27	\$0.00	\$153,598,554.54
Total Fed Share ^{3/}	\$2,145,397,023.03	(\$205,442,333.00)	\$114,215,889.00	(\$46,257,312.05)	\$2,007,913,266.98	\$49,235,675.27	\$77,781,344.24	\$2,134,930,286.49
Total State Share	\$234,903,542.13	(\$26,993,373.00)	(\$114,215,889.00)	\$0.00	\$93,694,280.13		\$77,693,579.68	\$171,387,859.81
Total	\$2,380,300,565.16	(\$232,435,706.00)	\$0.00	(\$46,257,312.05)	\$2,101,607,547.11	\$49,235,675.27	\$155,474,923.92	\$2,306,318,146.30

1/ The Federal Expense Allocation is reduced by the annual appropriation in addition to the mandatory grant distribution.

2/ The Historical Coal balance is calculated based on the following: 1) 30% of fees collected increase the balance; 2) the current year mandatory grant distribution reduces the balance, and; 3) state share funds from certified states are transferred into the Historic Coal share to increase the balance.

3/ \$46,257,312.05 is the amount transferred at the beginning of FY 2018 to the United Mine Workers Benefit Fund and the 1992 Benefit Plan for estimated expenses in FY 2018 and for adjustments to actual expenditures in FY 2016.

3. Revenue Management

The 2020 budget request includes \$410,000 and two FTE for the Revenue Management program activity. The Revenue Management activity involves managing a variety of non-fee revenues and receivables that come from the agency's operations. These include the following:

- Federal civil penalties issued for mining violations. The total outstanding balance of open civil penalty cases was \$1,873,807 at the end of FY 2018, including interest and late charges. New civil penalties recorded in FY 2018 totaled \$1,847,700, and OSMRE collected \$4,055 during the year, including late charges.
- Bond forfeitures by Federally permitted mining companies.
- Fees for mine permit reviews and administration.
- Other miscellaneous fees and receipts.

The bonds and penalties assessed ensure responsible management practices in the extraction of coal resources. Levy of penalties and fees help to ensure operators' compliance with coal mining regulations and ensure the land is restored to beneficial use at the conclusion of mining operations.

Civil penalty collections are used to reclaim post-SMCRA mine sites. To maximize the collection rate on civil penalties, OSMRE uses all of the debt collection tools available. These tools include demand letters, personal contact with the debtor, use of payment plans, referral to private collection agencies through the Department of Treasury, litigation through the Solicitor's Office, and referral to the Department of Treasury for payment offset. Additionally, delinquent civil penalties are reported to the Applicant Violator System so that violators and debtors do not obtain permits to mine coal until the outstanding debt and violations have been resolved. These are the same tools used in the AML Fee collection program. However, because the majority of the companies that incur AML Fees are viable, the collection rate for AML Fees is higher than the collection rate for civil penalties.

During FY 2019 and FY 2020, OSMRE will refer civil penalty debt that is more than 120 days delinquent to the Department of Treasury for collection, in accordance with the Digital Accountability and Transparency Act of 2014. OSMRE has a memorandum of understanding with the Department of Treasury whereby they will provide collection services on debts over 120 days delinquent. During FY 2018, OSMRE referred 100 percent of qualifying civil penalty debts to the Department of Treasury.

4. United Mine Workers of America Health Benefit Plans (UMWAF) Transfers

While not considered a separate OSMRE program activity, the transfers to the UMWAF activity are an integral and important component of OSMRE's SMCRA responsibilities. These transfers provide funding for the unreimbursed health care expenses of UMWA retired coal miners and their dependents. The process involves reviewing the UMWAF annual transfer requests, the annual UMWAF financial statements audit reports, and true-up calculations from prior-year transfers. It

also entails estimating future interest earnings; preparing various budgetary estimates, projections and transfer requests for funding from the Treasury; and planning annual audit procedures to provide reasonable assurance that the transfers conform to the authorizing legislation and General Accountability Office principles.

The Energy Policy Act of 1992 (Section 9722) amended SMCRA to provide for transfers of interest earnings from the Abandoned Mine Reclamation Fund to the UMWAF Combined Fund to pay for the unreimbursed health benefit expenses of unassigned beneficiaries. The 2006 SMCRA Amendments provided for additional funding for certain beneficiaries of the UMWAF 1992 and 1993 Health Benefit Plans, from any excess interest earnings and from the Treasury. On May 5, 2017, the Consolidated Appropriations Act of 2017 was enacted and Section 101 of the Act, cited as the Health Benefits for Miners Act of 2017, amended SMCRA to provide funding for additional beneficiaries of the UMWAF 1993 Health Benefit Plan.

During FY 2019 and 2020, OSMRE will process the UMWAF transfer requests for the three UMWAF health plans and provide funding for an estimated 41,848 beneficiaries. OSMRE will work with the UMWAF’s external auditors to plan the testing of selected internal controls and utilize existing audit work where practical. OSMRE will also work to implement recommendations from the Department of the Interior’s Inspector General to provide additional assurances that transfers conform to the authorizing legislation. The transfer requests for FY 2018, 2019 and 2020 are outlined in Table 10 below:

Table 10 – UMWA Transfer Requests

Health Benefit Plan	Fiscal Year Transfer Amounts (Dollars in Millions)		
	2018 Actual	2019 Actual	2020 Projected
Combined Fund including the Reachback Provision	\$ 60.7	\$ 46.8	\$ 40.65
1992 Plan	59.6	40.0	54.4
1993 Plan	211.2	192.6	219.9
Total – All Plans	\$331.5	\$279.4	\$323.9
Funding Sources			
• AML Fund Interest	\$ 46.3	\$ 54.3	\$ 39.5
• Treasury Funds	\$285.2	\$225.1	\$284.4

FINANCIAL MANAGEMENT

2019 Planned Program Performance

In FY 2019, OSMRE will maintain a high rate of fee compliance. To help ensure that results continue to be achieved efficiently, OSMRE will:

- Look for opportunities to create efficiencies in the fee accounting and collection processes.
- Continue to promote electronic payments and E-filing.
- Continue to support the financing and accounting of the AML and Regulation and Technology Grants to States and Tribes.
- Process transfer requests from the UMWAF totaling \$279.4 million to provide funding of unreimbursed health care expenses for an estimated 41,848 coal miners and their dependents.
- Continue to analyze the reasonableness of the UMWAF transfer and work to implement Office of the Inspector General recommendations to improve the oversight of the UMWAF transfer process.

2018 Program Accomplishments

In 2018, the major accomplishments in the Financial Management program activity include:

- Collected \$155.5 million in coal reclamation fees resulting in a collection rate of 99.8 percent on quarterly coal reclamation fees.
- Maintained an E-filing enrollment rate of 85.9 percent of the active reporting permits, which are reported electronically through OSMRE's internet-based reporting system.
- Processed automatically 86.1 percent of quarterly fee payments, or 2,468 fee payments.
- Processed automatically 84.4 percent of coal reclamation fee reports during the fourth quarter.
- Continued to analyze investment opportunities to maximize earnings on the Abandoned Mine Reclamation Fund.
- Processed transfer requests from the UMWAF totaling \$331.5 million and provided funding of unreimbursed health care expenses for an estimated 44,769 retired coal miners and their dependents.
- Implement three Office of the Inspector General recommendations to improve the oversight of the UMWAF transfer process.

TAB

Executive Direction and
Administration

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EXECUTIVE DIRECTION AND ADMINISTRATION**Executive Direction and Administration Budget Request**
(Dollars in Thousands)

	2018 Actual	2019 CR Baseline	2020				Change From 2019 (+/-)
			Fixed Costs (+/-)	Internal Transfer s (+/-)	Program Changes (+/-)	2020 Request	
Regulation and Technology	13,936	13,936	-814	-	+814	13,936	-
Executive Direction	2,054	2,054	+10		-10	2,054	-
<i>FTE</i>	<i>17</i>	<i>15</i>			-	<i>15</i>	-
Administrative Support	3,575	3,575	+17		-17	3,575	-
<i>FTE</i>	<i>32</i>	<i>30</i>			-	<i>30</i>	-
General Services	8,307	8,307	-841		+841	8,307	-
<i>FTE</i>							
Abandoned Mine Reclamation Fund	6,466	6,466	-398	-	+398	6,466	-
Executive Direction	910	910	+4		-4	910	-
<i>FTE</i>	<i>9</i>	<i>9</i>			-2	<i>7</i>	<i>-2</i>
Administrative Support	1,846	1,846	+11		-11	1,846	-
<i>FTE</i>	<i>16</i>	<i>16</i>			-2	<i>14</i>	<i>-2</i>
General Services	3,710	3,710	-413		+413	3,710	-
<i>FTE</i>							
Total, Executive Direction	20,402	20,402	-1,212	-	+1,212	20,402	-
Total FTE	74	70			-4	66	-4

Note: 2018 FTE amounts reflect actual usage.

Fixed Costs of \$42,000 cover pay related items including a pay raise and FERS employer contribution increase. Additional fixed costs include an increase in worker's compensation (\$2,000) and decreases in working capital fund adjustments (\$-146,000) and GSA rental rates (-\$1,110,000).

Summary of 2020 Program Changes for Executive Direction and Administration

Request Component	(\$000)	FTE
Priority Alignment	-42	-4
Investment in Future Efficiencies	+1,254	
TOTAL Program Changes	+1,212	-4

The Executive Direction and Administration business line provides leadership, policy, program management guidance, and support for all areas of responsibility for OSMRE.

Justification of 2020 Program Change

Priority Alignment (-\$42,000/-4 FTE): The FY 2020 budget maintains Executive Direction and Administration operational activities, and aligns OSMRE’s existing manpower resources across business lines to optimize fulfillment of OSMRE’s statutory responsibilities and support of administration priorities.

Investment in Future Efficiencies (+\$1,254,000): The FY 2020 budget maintains General Services funding and invests in technologies, such as advanced telecommunications and video conferencing capabilities, that will yield cost savings and operational efficiencies in future years. The funding proposed for General Services will enable OSMRE to fulfill its statutory responsibilities, improve service delivery, and effectively support high priority work activities in the other business activities.

OVERVIEW

The Executive Direction and Administration business line supports all the bureau's programs. This business line includes the Director's Office and staff offices, information technology, administration, human resources, and internal financial management for the organization. Executive Direction and Administration provides internal executive direction and administrative support to programs, regions, and field offices through the development and coordination of agency policy, budget, plans, and other guidance documents. Additionally, Executive Direction and Administration also oversees the implementation of Departmental and Administration initiatives in the Bureau.

The responsibilities for Executive Direction and Administration are accomplished through the efficient and effective operations of the two mission critical bureau business lines (i.e., Environmental Restoration and Environmental Protection) and the two business lines providing support functions (i.e., Technology Development and Transfer and Financial Management). The Executive Direction and Administration business line supports the DOI's strategic plan goals and measures by providing the required leadership and administrative support functions for these programs.

<p style="text-align: center;">EXECUTIVE DIRECTION AND ADMINISTRATION ENCOMPASSES:</p> <p>Executive Direction</p> <ul style="list-style-type: none">• Director's Office• Staff Offices under the Director<ul style="list-style-type: none">Office for Equal OpportunityOffice of CommunicationsOffice of Planning, Analysis, and BudgetInformation Resources Office <p>Administrative Support</p> <ul style="list-style-type: none">• Human Resources• Administration• Finance and Accounting• Information Technology <p>General Services</p>

Operational Processes (Program Activities): The funding request for this business line is to support the activities of Executive Direction, Administrative Support, and General Services. Executive Direction provides executive leadership and policy direction for the Bureau, which includes the immediate office of the Director. Administrative Support provides all of the support services for day-to-day operations, including human resources information technology, procurement, and finance and accounting. General Services funds bureau-wide fixed costs such as office space, telephones, postage, unemployment compensation, and other department-wide fixed costs assessed to OSMRE.

The performance of the Executive Direction and Administration business line's activities is an integral component of OSMRE's Environmental Restoration and Environmental Protection mission goal areas; and the Technology Development and Transfer and Financial Management support functions. OSMRE supports the Department's current Strategic Plan Mission Goal of Conserving Our Land and Water.

Program performance will be measured by the success of OSMRE in carrying out the environmental restoration and protection missions and through OSMRE's contribution to Departmental initiatives and high priority goals.

Actions Required to Achieve Annual Goals: OSMRE continuously monitors its programs for management efficiencies and savings.

Resources, Skills, and Technology Needed: OSMRE and its State and Tribal partners will continue to need a diverse and multi-disciplinary cadre of personnel to accomplish the mission and goals of the Surface Mining Control and Reclamation Act (SMCRA). These personnel will guide OSMRE through technical and policy decisions to ensure that coal-mining activities, including post-mining reclamation, are carried out in such a manner that the safety and health of coalfield citizens is protected and the environment is not degraded.

FY 2020 Budget Request: The request is for \$20.4 million for Executive Direction and Administration activities. Of this total, \$3.0 million will be used to provide executive direction and effective policy guidance for the overall program and liaison efforts with States, Tribes, coalfield citizens, Congress, and other Federal agencies. Administrative support and services for OSMRE will require \$5.4 million, and basic bureau-wide fixed overhead costs in general services will cost \$12.0 million.

2020 PROGRAM PERFORMANCE

1. Executive Direction

This activity provides executive direction and leadership, and policy and program management guidance for all areas of responsibility for OSMRE. The Executive Direction activity includes the salaries and operating expenses for the Office of the Director and four immediate staff offices, which include Equal Opportunity; Communications; Planning, Analysis, and Budget; and the Information Resources Office. The request includes \$2,964,000 and 22 FTE for Executive Direction.

a. Office of the Director (DIR)

The Director is OSMRE's Chief Executive. The Director provides the leadership and direction of OSMRE activities as required under SMCRA. The Director's primary objectives are to aggressively pursue the reclamation of abandoned mine lands (AML) and to prevent environmental problems in the coalfields during active mining by working collaboratively with the State regulatory agencies and other agencies with a role to play in the process. OSMRE makes every effort to ensure full public participation in the development and implementation of its regulatory responsibilities. An extensive outreach approach stimulates a more cooperative partnership not only with OSMRE's regulatory partners, but with other stakeholders as well, resulting in better and more effective implementation of the objectives of SMCRA.

In FY 2019 and FY 2020, OSMRE will continue outreach efforts which promote public participation in policy making. The arena for such participation includes public meetings on proposed rulemakings and conferences, which promote discussion and exchange of information on the current State of the coal industry and OSMRE's evolving role. OSMRE will continue to take positive steps to collaborate with States, Tribes, citizens, other stakeholders, and industry and encourage their participation.

The Deputy Director in the Office of the Director is the Chief Operating Executive for the bureau, and provides direct supervision for the business operations of the Bureau to the staff offices, as well as, executive leadership to the other programs and offices.

b. Office for Equal Opportunity (OEO)

OEO is responsible for promoting equal employment opportunities for all OSMRE employees. The staff advises and assists the OSMRE Director in carrying out the Bureau's responsibilities relative to Titles VI and VII of the Civil Rights Act of 1964, as amended; the Age Discrimination in Employment Act of 1967; the Rehabilitation Act of 1973; as well as Executive Orders, regulatory guidelines, and other nondiscrimination laws within the Federal Government. The Office:

- Provides leadership, direction, and policy guidance for Equal Employment Opportunity (EEO) Program development;

- Provides for the prompt, fair, and impartial processing of complaints of discrimination;
- Provides technical assistance and advice to employees and managers on all equal opportunity issues;
- Communicates the Bureau's equal employment opportunity policy and program and its employment needs to all sources of job candidates without regard to race, color, religion, sex, national origin, age or handicap;
- Ensures that a reasonable accommodation program is in place and is implemented in a fair and timely manner;
- Ensures that an alternative dispute resolution program is available for both the pre-complaint process and the formal complaint process;
- Develops, monitors, and evaluates EEOC MD-715 Affirmative Employment Program Plans to promote equal employment opportunities;
- Conducts studies on systemic employment problems, assesses the effect of policies and practices on equal employment, identifies employment barriers, recommends solutions, and develops written guidance for management; and
- Maintains a Civil Rights Complaints and Compliance program for Federally assisted and conducted programs.

In addition, OEO is responsible for Special Emphasis programs and assists the Bureau in creating a model equal employment program which ensures that all OSMRE employees and applicants for employment have equal access. It is responsible for implementing initiatives in response to Presidential Executive Orders, which provides for agencies to work more closely with Historically Black Colleges and Universities, Hispanic Serving Institutions and Tribal Colleges and Universities in an effort to enhance opportunities for minority serving institutions to participate and benefit from programs related to surface coal mining and reclamation activities.

c. Office of Communications (OC)

OC shares information about OSMRE programs, policies, and Congressional activities with the public, Congress, State regulatory agencies, the coal industry, citizen groups, and the media. OC facilitates requests for information from the news media, Congress and the public, and manages official Bureau correspondence. OC also coordinates OSMRE's annual reclamation awards that recognize excellence in reclaiming active and abandoned mines.

OC plans, coordinates, produces, and distributes the following products:

- Congressional Testimony
- Exhibits
- Fact Sheets
- News Releases
- Reports
- Publications
- Stakeholder Outreach
- Video
- Web and Social Media Content

d. Office of Planning, Analysis and Budget (OPAB)

OPAB performs nationwide planning, program analysis, and budgetary functions for OSMRE. OPAB:

- Supports the development of the Department of the Interior’s strategic plan;
- Collects, reviews, and reports annual regulatory and reclamation program accomplishment data;
- Analyzes trends in domestic coal production and reclamation progress;
- Carries out formulation, presentation, and execution of OSMRE’s budget; and
- Coordinates internal control and other program assessment reviews, in accordance with Executive Orders and Departmental initiatives.

e. Information Resources Office (IRO)

The IRO provides Information Management and Technology (IMT) services to OSMRE. The IRO provides advice and assistance to the Director, Deputy Director, and other senior OSMRE managers to ensure that information technology is acquired, utilized and managed in a manner that is consistent with applicable policies, regulations, and industry best practices. The major functions include:

- Providing advice and assistance to management and employees on IT policy, applicable laws, regulations, and directives;
- Maintaining a management framework for and coordinating OSMRE’s nationwide IT capital planning and investment control activities, including approval of IT expenditures within OSMRE;
- Developing and implementing IT strategic planning to ensure that all of OSMRE’s information systems are administered and developed in accordance with policies, long-range systems, and strategic planning;
- Managing OSMRE’s General Support System (GSS) and Information Security

program in support of OSMRE's SMCRA mission;

- Providing IRM-related support to OSMRE's system owners to include information system security support; and
- Ensuring integrity of IT systems and databases through cybersecurity programs.

In addition, the IRO manages all aspects of OSMRE's information management flow to ensure government transparency, accuracy, and responsiveness to information requests. OSMRE continues to evolve a comprehensive information management capability that includes meeting the requirements for a responsive and compliant Privacy Act Program awareness and loss-mitigation strategy, responding to Freedom of Information Act requests, and a Federal Records Act (FRA) compliant Records Management Program.

2. Administrative Support

This program includes the administrative functions necessary to support the program activities of OSMRE. The specific functions are included in four areas: Administration, Human Resources, Administrative Financial Management, and Information Technology. This request includes \$5,421,000 and 44 FTE to support these support activities.

This function is responsible for managing OSMRE's financial and administrative activities.

a. Administration

The Division of Administration is responsible for development of bureau-wide administrative policy and procedures. The Division also implements the following support activities:

- Acquisition
- Property Management
- Vehicle Fleet Management
- Space Management
- Emergency Coordination
- Physical Security
- Employee Safety & Occupational Health
- Directives Management
- Printing and Publications
- Employee Transit Subsidy

The Division of Administration also provides administrative support to headquarters offices. These support activities include office moves, provision of general supplies and services, and mailroom functions.

The Division of Administration is responsible for providing guidance to ensure OSMRE meets its competitive sourcing goals. The Division of Administration provides guidance in the completion of the annual Federal Activities Inventory Reform (FAIR) Act Inventory to identify all functions throughout OSMRE and their designation as either inherently governmental or commercial in nature. The Division of Administration also maintains a presence on the Departmental Acquisition Special Interest Group (SIG) as an active member to ensure OSMRE acquisition needs and requirements are met.

The Division of Administration provides direction, coordination, and implementation of all aspects of OSMRE's emergency management program. This includes, but is not limited to, internal policy development; program guidance and direction as it relates to emergency response/continuity of operations/recovery planning, readiness, and, security; and coordination of OSMRE's response/recovery role to declared emergencies and/or disasters on a government- wide basis.

b. Human Resources (HR)

The Division of Human Resources (HR) develops and implements policies, standards and systems for the effective use of human resources to accomplish the overall mission of OSMRE. Specifically, the human resources program provides managers and employees advice and technical assistance on the full range of human resources programs in accordance with OSMRE, DOI, OPM, and other Federal policies and guidelines. HR provides processing and record keeping on recruitment, staffing and hiring; conducts position classification and organizational analysis; and administers pay and compensation programs for general schedule and senior executive service positions. The Division also advises and processes employee and retirement benefits; oversees performance management, awards and recognition programs; implements Human Capital initiatives; manages ethics and financial disclosure holdings programs; implements the personnel security (HSPD-12) process for both Federal and contractor staff; provides mandatory employee development and training assistance; and provides guidance on employee relations and workplace issues including disciplinary actions. The staff has continued to use automated systems such as Monster Government Solutions (MGS) Hiring Enterprise, the Federal Personnel and Payroll System (FPPS), Employee Express, DOI Learning Management System (LMS), Personnel Investigative Processing System (PIPS), and the e-QIP web site linking employees to security forms needed for background investigations. These automated systems provide direct online personnel history files, human resources information and services directly to the manager, employee, and applicant.

Special ongoing initiatives this office is working on are highlighted below:

Strategic Recruitment: Human Resources, in conjunction and cooperation with OSMRE's Office for Equal Opportunity, continues to expand recruitment of the number of women, minorities, and persons with disabilities identified in under-represented occupations. Efforts to hire veterans are an integral part of this expanded recruitment effort as authorized under recent Executive Orders as well. OSMRE promotes workforce diversity and to continue to improve and strengthen human capital process and tools to attract highly skilled applicants in support of building a 21st Century workforce.

Strategic Management of Human Capital: OSMRE establishes quality control processes in staffing and personnel processing to ensure compliance and support implementation of its workforce plan. OSMRE HR executes strategic position management activities with quarterly and annual evaluations that link individual hiring decisions made during the course of the year, thus empowering managers to focus on developing competencies and skills needed to accomplish OSMRE mission goals. To promote retention in positions where skill gaps have been identified, OSMRE can utilize several programs including student loan repayments, relocation allowances, and retention incentives. In addition, OSMRE uses honorary, non-monetary, and monetary awards to reward employees based on their

contributions to the work of the organization. Annual and tri-annual accountability audits are conducted to ensure compliance and identify deficiencies for improvement.

Hiring Reform: OSMRE evaluated its current performance against Office of Personnel Management's 80-day model and has revised the Time 2 Hire workflow to include stakeholders involved in the process. OSMRE will begin FY 2019 implementation of new processes to improve accountability and service quality metric to gauge and monitor progress toward improving its hiring process. In addition, OSMRE identified critical training needs for managers and supervisors in drafting job analysis, assessments, and position descriptions. Training will be a priority throughout FY 2019.

Performance Management: OSMRE's current performance management process is labor intensive for supervisors and human resources. DOI plans to roll out an automated performance management tool. OSMRE will focus on training supervisors on effective standard development, roles and responsibilities, and employee performance awards to increase organization effectiveness.

Employee Relations: OSMRE is committed to preventing harassment in the workplace. This is an agency priority. OSMRE's new Anti-Harassment C.A.R.E. program will improve accountability, communications, and transparency to ensure a workplace free from harassment. OSMRE will deliver targeted training and employee relations consultation service to managers and employees.

c. Administrative Financial Management

The Financial Management activity funded in this business line provides OSMRE's program offices with accounting and financial services for operational funds to implement SMCRA. Additionally, such services include improved access and presentation of financial data to improve the management of operations and allow for more informed decision making. These services include timely bill pay, recording of receipts and expenditures, issuing financial guidance and management reports, collecting administrative debts, development of financial management operating procedures and tutorials, ensure compliance of Federal travel regulations, supporting DOI's audited financial statements, and maintaining financial systems and tools that support these functions.

d. Information Management and Technology (IMT)

OSMRE is dependent upon information technology to provide efficient and accurate management information to assist OSMRE's program managers in accomplishing the agency's mission. Activities span all business lines and are funded under other business lines in the budget as well as Executive Direction.

As of FY 2016, OSMRE operates a centralized Information Management Technology (IMT) program under the direct authority of the Bureau's Associate Chief Information Officer (ACIO). OSMRE leverages IMT shared services and services provided under reimbursable agreements to supplement its IMT service offerings. OSMRE will continue to evaluate shared service

opportunities and technology to meet OSMRE mission needs in order to increase operational efficiencies and harden its cyber security posture.

Through its cyber security program, OSMRE ensures the integrity of its systems and data assets. The ACIO and the Information Resources Office (IRO) staff provides the Bureau with system assessment and accreditation services as well as performing continuous monitoring security controls to ensure security compliance. The IRO provides, as a component of its security program, virus filtering and continuous traffic monitoring systems which significantly enhance efforts to manage security for its information systems. To ensure cyber security hygiene, the IRO also maintains vulnerability, configuration management, and incident responses processes to ensure timely installation of software patches and fixes while strengthening incident handling responses.

Additionally, employee awareness and compliance are assured through a comprehensive training program. In response to the Federal Information Systems Security Awareness (FISSA) training requirements, employee mandatory training was expanded to include Privacy, Records Management and Rules of Behavior training on an annual basis. OSMRE also provides specialized and role-based security training (RBST) to its employees that have significant IT security responsibilities.

The IRO continues to manage OSMRE's Capital Planning and Investment Control (CPIC) process to ensure the Bureau's IMT investment portfolio represents the optimal mix of technology and services sufficient to support the OSMRE mission. OSMRE works closely with Departmental counterparts to ensure the CPIC program is maintaining the desired results of the program.

3. General Services

This funding activity includes essential fixed costs to support OSMRE's program missions. No personnel or operational activities are funded by this component. The costs below are estimates for FY 2020 and reflect estimated Departmental fixed cost changes from FY 2019 levels and known future plans, including field office closures, co-location, space reduction, anticipated contracting efficiencies, and investment in technologies and systems to yield additional efficiencies in the future.

Table 11 shows projected the General Services costs by category for FY 2019 and FY 2020.

Table 11 – Estimated General Services Costs
(in Round Dollars)

Line Item	2019 CR Baseline	2020 Estimate	Estimated Change 2019 – 2020
Rent and Utilities	6,228,000	5,118,000	-1,110,000
Telecommunications	300,000	300,000	
Postage	10,000	10,000	
DOI Working Capital Fund	2,328,000	2,182,000	-146,000
DOI Program Requirements	145,000	145,000	
Unemployment Compensation	6,000	6,000	
Worker's Compensation	131,000	133,000	+2,000
Bureau-wide Printing/Supplies	272,000	272,000	
Service Contracts	170,000	170,000	
GSA Work Authorizations	5,000	5,000	
Operational Support Contracts/IT Shared Services (Quickhire, Quicktime, Enterprise Service Network, software licenses, etc.)	2,422,000	3,676,000	+1,254,000
Total	12,017,000	12,017,000	-

EXECUTIVE DIRECTION AND ADMINISTRATION

2019 Planned Program Performance

In 2019, planned activities in the Executive Direction and Administration program activity include:

- Training - Continue to utilize training as a strategy to increase cultural competencies, reduce the number of EEO complaints filed, and conduct civil rights reviews on Federal assisted and Federally conducted programs.
- Space – Continue to review opportunities to reduce OSMRE’s leased space footprint and expenditures.
- Acquisition – Continue to review opportunities to improve oversight of OSMRE’s acquisition functions.
- Property – Continue to improve the quality of Financial and Business Management System (FBMS) asset record data.
- Budget and Performance Management – Enhance the bureau’s performance management program by formalizing an OSMRE performance management directive and making strategic improvements to program performance measures.
- Support DOI’s Financial Audit Statements for FY 2018 and FY 2019.
- Improve the availability of self-guided videos and instructions through a single application.
- Continue to improve the delivery and accessibility of financial information.
- Capital Planning and Investment Capital (CPIC) – Conduct required evaluations for all IT programs and major investments.
- Information Management and Technology (IMT) – Continue to provide component-level IMT services and mission system support while supporting DOI IMT initiatives to include deployment of DHS Continuous Diagnostic and Mitigation (CDM) capabilities consistent with applicable rules and regulations.
- Continue to provide administrative support across the bureau to enable mission success in the other four business lines (Environmental Restoration, Environmental Protection, Technology Development and Transfer, and Financial Management).

2018 Program Accomplishments

In 2018, the major accomplishments in the Executive Direction and Administration program activities include:

- Developed an electronic “Mobile Office” demonstration module that enables employees to initiate and complete common administrative processes directly from their laptops wherever they may be.
- Improved the efficiency of OSMRE’s Emergency Management program by reducing labor costs while still exceeding program performance targets.
- Facilitated OSMRE’s use of small business in meeting the Bureau’s acquisition needs, achieving the highest small business obligation rate within the DOI for the third consecutive year.
- Improved the quality of OSMRE’s Safety and Occupational Health program by enhancing the ability of OSMRE managers to identify and mitigate employee risk.
- Scored green in all areas of DOI’s Financial Performance Metrics.
- Achieved 100 percent prompt pay on vendor payments.
- Capital Planning and Investment Capital (CPIC) – Completed required evaluations for all IT programs and major investments.
- Provided educational and employment opportunities to youth in the areas of communications, budget, information technology, auditing, and general administration.
- Supported DOI’s Audited Financial Statements for FY 2017 and FY 2018.

TAB

Permanent Appropriations

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PERMANENT APPROPRIATIONS

**ALLOCATIONS TO STATES AND TRIBES
TRANSFERS TO UNITED MINE WORKERS OF AMERICA HEALTH BENEFIT
FUNDS
INVESTMENTS TO ADDRESS IMPORTANT LEGACY COSTS IN COAL COUNTRY**

OSMRE receives mandatory funding to distribute grants to States and Tribes and transfers to three health benefit plans that are part of the United Mine Workers of America Health and Retirement Funds. The three health benefit plans that receive funding under the Surface Mining Control and Reclamation Act (SMCRA) are collectively referred to as the “UMWA Health Benefit Plans.” These payments are derived from the Abandoned Mine Reclamation Fund (AML Fund) and the General Treasury.

Table 12 – Permanent Appropriation Estimates
(Dollars in Millions)

Permanent Appropriation	2018 Actuals*	2019 CR Baseline*	2020 Estimates	Change from 2019 to 2020 Proposed
Payment (or Grants) to States in Lieu of Coal Fee Receipts (U.S. Treasury Funds)	106.7	103.0	47.3	-55.7
• In Lieu Payments to Certified States and Tribes	106.7	103.0	47.3	
Mandatory Grants to Noncertified States (AML Fund)	194.1	188.3	141.1	-47.2
• State and Tribal Share	25.2	25.5	26.6	
• Historic Coal Share	151.4	145.5	91.7	
• Min Program Make Up	17.5	17.3	22.8	
Subtotal- Payments to States and Tribes	300.8	291.3	188.4	-102.9
Payments to UMWA Health Benefit Plans (AML Fund Interest)	46.3	54.3	60.1	+5.8
Supplemental Payments to UMWA Health Benefit Plans (Treasury Funds)	285.2	225.1	263.9	+38.8
Subtotal- Payments to UMWA Health Benefit Plans	331.5	279.4	324.0	+44.6
Total Mandatory Funding	632.3	570.7	512.4	-58.3
<i>Subtotal from AML Fund</i>	240.4	242.6	201.2	-41.4
<i>Subtotal from Treasury</i>	391.9	328.1	311.2	-16.9

*Includes reductions due to sequestration.

OVERVIEW

One of the basic concepts of SMCRA is to charge a fee on coal production to finance the reclamation of abandoned mine lands (AML) across the country. Reclamation fees are deposited into the Abandoned Mine Reclamation Fund (AML Fund) and distributed through the annual appropriations process to States and Tribes for AML reclamation and to OSMRE for administrative expenses. In 2006, amendments to SMCRA extended the authority to collect the reclamation fee and altered the distribution of payments beginning in 2008.³

Collection of Reclamation Fees

Reclamation fees collected are placed in the AML Fund. The current reclamation fee authorized by SMCRA is: 28 cents/ton of surface mined coal; 12 cents/ton of coal mined underground; and 8 cents/ton of lignite; or ten percent of the value of the coal (two percent of the value of the lignite), whichever is less. Total fee receipts for FY 2018 were \$155.5 million. Reclamation fee collections form the basis for mandatory grants to the certified and noncertified States and Tribes. The remaining funds collected are available for discretionary appropriations.

Interest accrued on the AML Fund becomes part of the AML Fund and is available for transfer to the United Mine Workers of America Health and Retirement Funds in order to help finance three health care plans (collectively referred to as the “UMWA Health Benefit Plans”).

Allocation and Distribution of Reclamation Funds to States and Tribes

Generally, States must have an approved SMCRA regulatory (Title V) program and an approved reclamation (Title IV) program to be eligible to receive mandatory AML funding. Three Tribes (Crow, Hopi, and Navajo) are eligible for funding through the AML program, and each has an approved reclamation program. As part of the 2006 amendments to SMCRA, Tennessee also became eligible for AML program funding although it does not have an approved regulatory program. A total of 25 States and three Tribes received reclamation funding in FY 2019; of these, five States and all three Tribes have certified completion of coal abandoned mine land problems.

Amendments to SMCRA since 2006 have included section 100125 of *Moving Ahead for Progress in the 21st Century Act* (Public Law No. 112-141), and section 10(d) of the *Helium Stewardship Act* of 2013 (Public Law 113-40). These two amendments, enacted in 2012 and 2013, provided limitations on the amount of funds available for distribution to the certified States and Tribes from FY 2013 to FY 2015⁴. On December 4, 2015, the *Fixing America’s Surface Transportation Act, or FAST Act*, (Public Law 114-94) was enacted, which lifted the limitations to payments to certified States and Tribes that were contained in the prior amendments, and provided for \$241.9 million in additional payments to certain eligible certified States and Tribes.

³ OSMRE published regulations implementing the Act (November 14, 2008, 73 FR 67576), which became effective on January 13, 2009.

⁴ Public Law No. 112-175 (section 142 of the Continuing Appropriations Resolution for 2013) enacted language so that the uncertified States were not impacted by the limitations put in place on certified State and Tribe funding by the 2012 and 2013 referenced amendments.

a. AML Fund

Noncertified States are allocated mandatory grants from the AML Fund based on the reclamation fees collected the previous fiscal year. The amount of the grant for each noncertified State is determined through a formula that adds the following allocations:

1. Half of reclamation fees collected in that State (known as the State Share);
2. A State's portion of 30 percent of all reclamation fees collected Nationwide and the amount of the State/Tribal Share forgone by certified States and Tribes; each State's portion is determined proportionally based on the amount of coal production in that State prior to 1977 (known as Historic Coal Share); and
3. Any amount needed to ensure that each noncertified State receives at least \$3 million annually (known as the Minimum Program Make Up Funds).

SMCRA specifies the eligible uses of each of specific allocation. All funding provided to noncertified States can be used to address hazards and problems on abandoned coal mine lands, such as underground fires, subsidence, landslides, open shafts, unstable or burning refuse piles, acid mine drainage, and dangerous, unstable highwalls. Some of the allocations are restricted to use on the highest priority coal mine sites, i.e., minimum program make up funds, while other allocations may be used to address problems such as water supplies adversely affected by coal mining, i.e., State Share. In certain circumstances, State Share and Historic Coal Share funds may also be used to reclaim certain non-coal sites, such as abandoned hardrock mine lands. Western States, in particular, often use their reclamation funds to address high priority hardrock AML sites, for which there is no other source of Federal funding.

In FY 2019, noncertified States will receive \$188.3 million after sequestration (\$25.5 million in State Share, \$145.5 million in Historic Coal Share, and \$17.3 million in Minimum Program Make Up Funds).

For FY 2020, OSMRE estimates that noncertified States will receive \$141.1 million in grants from the AML Fund (\$26.6 million in State Share; \$91.7 million in Historic Coal Share; and \$22.8 million in Minimum Program Make Up Funds).

b. Treasury Funds

Mandatory payments from the Treasury to certified States and Tribes are also allocated by formula. In lieu payments to certified States and Tribes are equal to half of the reclamation fees collected in that State or Tribe in the previous fiscal year. Certified States and Tribes will receive \$103.0 million, after sequestration, in FY 2019. These payments can be used for any purpose.

Under current law, total mandatory payments to States and Tribes from Treasury funds in FY 2020 are estimated to be \$47.3 million.

Treasury funds paid to the States and Tribes and transfers to the UMWA Health Benefit Plans are

subject to an overall \$490 million cap on all annual transfers from the Treasury under the 2006 amendments to SMCRA.

Transfers (or Payments) to the UMWA Health Benefit Plans

Sections 402(h) and (i) of SMCRA require OSMRE to transfer funds to three United Mine Workers of America (UMWA) health care plans that are part of the UMWA Health and Retirement Funds: the United Mine Workers of America (UMWA) Combined Benefit Fund (CBF), the UMWA 1992 Benefit Plan, and the Multiemployer Health Benefit Plan (aka, the 1993 Benefit Plan). The three plans are collectively referred to as the “UMWA Health Benefit Plans.” These transfers are as follows:

- Annual transfers of all estimated AML Fund interest earnings for each fiscal year to the UMWA Health Benefit Plans, to the extent payments from premiums paid by operators and other sources (i.e., payments from other Federal agencies for benefit purposes) do not meet those plans’ expenditure needs, subject to certain limitations. Transfers under the current law began in 2007 to the CBF and in 2008 to both the 1992 and 1993 Plans.
- The UMWA Health Benefit Plans are also entitled to payments from the Treasury, which are subject to the same overall \$490 million cap on all annual transfers from the Treasury under the 2006 amendments to SMCRA.
- In general, the amount of the transfers to the UMWA Health Benefit Plans is dependent on the extent that their revenues do not meet their expenditures. When that occurs, OSMRE will transfer available funds in the following order as needed:
 - Estimated interest to be earned by the AML Fund during the fiscal year in question.
 - Unappropriated balance of the RAMP allocation. (Note: Funds were exhausted as of the FY 2010 distribution.)
 - Transfers from the U.S. Treasury, subject to the \$490 million cap on annual transfers from Treasury to both the UMWA Health Benefit Plans and the States and Tribes.
 - Reserve fund created from existing stranded interest earned by the AML Fund.

In FY 2019, the UMWA Health Benefit Plans received \$54.3 million in interest payment from the AML fund and \$225.1 million from the Treasury.

For FY 2020, under current law, OSMRE estimates that \$60.1 million in interest payments from the AML Fund and \$263.9 million from the Treasury will be transferred to the UMWA Health Benefit Plans.

Table 13 – Mandatory Funding for States and Tribes, FY 2018-2020
(Dollars Rounded in Millions)

State/Tribe	2018 Actual	2019 CR Baseline	Hypothetical Distribution for FY 2020
Alabama	5.3	5.1	3.7
Alaska	2.8	2.8	3.0
Arkansas	2.8	2.8	3.0
Colorado	3.3	3.1	3.0
Illinois	19.0	18.7	13.0
Indiana	8.1	8.1	6.2
Iowa	2.8	2.8	3.0
Kansas	2.8	2.8	3.0
Kentucky	19.0	18.3	12.9
Maryland	2.8	2.8	3.0
Missouri	2.8	2.8	3.0
New Mexico	2.8	2.8	3.0
North Dakota	2.8	2.8	3.0
Ohio	10.8	10.3	6.7
Oklahoma	2.8	2.8	3.0
Pennsylvania	55.7	53.9	35.4
Tennessee	2.8	2.8	3.0
Utah	2.8	1.4	.9
Virginia	5.8	5.6	3.9
West Virginia	36.3	35.8	25.3
<i>Sub-total for noncertified States</i>	<i>194.1</i>	<i>188.3</i>	<i>141.1</i>
Louisiana	.2	.2	-
Mississippi	.1	.1	.1
Montana	7.6	7.8	3.9
Texas	2.8	2.5	1.4
Wyoming	91.3	87.8	40.1
Crow	1.2	1.2	.5
Hopi	.5	.6	.3
Navajo Nation	3.0	2.8	1.0
<i>Sub-total for certified States and Tribes</i>	<i>106.7</i>	<i>103.0</i>	<i>47.3</i>
AML Site Reclamation/Redevelopment			
Total for All States/Tribes	300.8	291.3	188.4
Source of Mandatory Funding:			
• AML Fund	194.1	188.3	141.1
• Treasury	106.7	103.0	47.3
Notes: Noncertified States are those that have remaining coal AML problems to address. Certified States and Tribes have certified that there are no remaining coal AML problems. FY 2018 figures reflect a reduction of 6.6 percent due to sequestration. FY 2019 figures reflect a 6.2 percent reduction due to sequestration. References: P.L. 109-432, SMCRA Amendments Act of 2006; P.L. 112-141, MAP-21; P.L. 112-175, the Continuing Appropriations Resolution for 2013; and P.L. 113-40, The Helium Stewardship Act of 2013.			

TAB
Budget Exhibits

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BUDGET EXHIBITS

Exhibit A: Section 403 Compliance⁶

Program/Project Support of Bureau, Department, and Government-wide Costs

	2019 CR Baseline	2020 Request
External Administrative Costs		
WCF Centralized Billings	\$2,377,000	\$2,181,800
WCF Direct Billing/Fee for Service	\$1,306,700	\$1,257,400

External Administrative Costs

OSMRE funds external administrative costs, to include amounts paid to the Department of the Interior (DOI) to support Departmental or government-wide costs, in the General Services activity within the Executive Direction and Administration business line.

Bureau Administrative Costs

OSMRE does not assess a charge for overhead, deductions, reserves, or holdbacks against the amounts requested in each of its business lines; rather, Bureau level administrative costs are identified in the Executive Direction and Administration business line in the budget justification. The Executive Direction activity provides executive direction in overall leadership and bureau-wide policy and program performance management guidance. The Administrative Support activity includes all the administrative functions necessary to support program activities including: Administration, Human Resources, Administrative Financial Management, and Information Technology. In addition to the DOI Working Capital Fund, the General Services activity includes essential fixed costs to support OSMRE's program missions such as rent, telecommunications, and service contracts. Further information on specific elements of each activity can be found in the Executive Direction and Administration section.

Support functions at the regional and field offices ensure various activities are integrated so the mission is accomplished. The majority of these costs are comprised of the salary and benefits for field office directors, regional directors and their administrative staff. These costs are not identified under Executive Direction and Administration, but rather included in the program funding requested in the respective business lines.

Activity Based Costing allows OSMRE to internally track the indirect costs associated with its various organizational units and program activities. This is important in determining the full cost of program activities for evaluation purposes. By having employees report and track costs at the lowest work breakdown structure level, managers are able to assess both the direct and indirect costs of the Bureau's programs and activities.

⁶ Interior, Environment, and Related Agencies Appropriations Act, 2018 (Public Law 115-141)

Exhibit B: Employee Count by Grade (PER-4)

Office of Surface Mining Reclamation and Enforcement

Employee Count by Grade
(Total Employment)

	FY 2018 Actual	FY 2019 Estimate	FY 2020 Estimate
Executive Level V	1	1	1
SES.....	5	6	6
Subtotal.....	6	7	7
GS/GM-15.....	21	23	23
GS/GM-14.....	47	55	55
GS/GM-13.....	108	112	114
GS-12.....	139	141	146
GS-11.....	27	29	30
GS-10.....	0	0	0
GS-9.....	15	17	17
GS-8.....	6	7	7
GS-7.....	4	12	13
GS-6.....	0	4	4
GS-5.....	0	0	0
GS-4.....	1	1	1
GS-3.....	0	0	0
GS-2.....	0	0	0
Subtotal.....	380	401	410
Total employment (actuals & estimate).....	386	408	417

Note: This is employee count projected at the end of each fiscal year and not FTE levels.

TAB
Appendixes

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**AML Reclamation Accomplishments
Historical Data through September 30, 2018
Priority 1, 2, and 3 Problems**

Problem Type	Units	Number of Units	GPRA Acres	Cost of Completed Reclamation	Remaining Reclamation Costs
Bench **	Acres	699	698	2,998,597	14,748,023
Clogged Streams	Miles	1,345	6,663	64,055,266	65,185,833
Clogged Stream Lands	Acres	20,080	31,753	222,214,031	211,957,781
Dangerous Highwalls	Feet	3,825,104	55,319	546,623,127	1,160,339,495
Dangerous Impoundments	Count	1,966	10,576	59,485,263	31,184,449
Industrial/Residential Waste (Priority 1 & 2)	Acres	1,298	1,296	5,552,251	11,741,617
Dangerous Piles & Embankments	Acres	13,522	13,470	271,667,683	303,455,295
Dangerous Slides	Acres	4,052	4,070	236,350,093	99,432,931
Equipment/Facilities **	Count	785	84	7,594,341	5,714,970
Gases: Hazardous Explosives	Count	49	49	628,055	2,349,001
Gobs (Coal waste piles) **	Acres	7,157	7,151	96,736,447	82,657,764
Highwall **	Feet	273,693	3,911	20,573,859	1,296,902,056
Hazardous Equipment & Facilities	Count	5,144	1,222	30,801,126	27,993,050
Haul Road **	Acres	2,038	2,038	9,996,361	4,589,664
Hazardous Water Body	Count	910	4,757	51,551,744	84,927,310
Industrial/Residential Waste **	Acres	306	305	1,950,842	931,333
Mine Opening **	Count	1,019	103	4,418,463	15,193,057
Other (*)(**)	----	2,821	N/A	10,141,977	23,901,033
Polluted Water: Agricultural & Industrial	Count	435	2,152	43,755,856	81,038,070
Polluted Water: Human Consumption	Count	55,207	258,129	409,768,293	3,011,884,544
Portals	Count	12,491	1,271	73,461,659	42,843,933
Pits **	Acres	3,050	3,051	22,817,815	45,456,848
Subsidence	Acres	8,323	8,305	429,453,799	616,727,178
Spoil Area **	Acres	90,366	88,029	88,137,428	900,576,288
Surface Burning	Acres	1,602	1,601	62,127,457	20,018,301
Slurry **	Acres	2,835	2,835	33,519,297	8,228,766
Slump **	Acres	736	732	6,853,332	102,461,073
Underground Mine Fire	Acres	1,808	2,006	107,705,665	852,267,441
Vertical Opening	Count	7,211	773	49,438,260	41,161,956
Water Problems (*)(**)	Gal/Min	256,441	N/A	61,517,091	967,169,496
Total			512,349	\$3,031,895,478	\$10,133,038,556

* Not converted to GPRA Acres

Source: enhanced Abandoned Mine Land Inventory System (e-AMLIS)

** Adjacent Priority 3 Problems

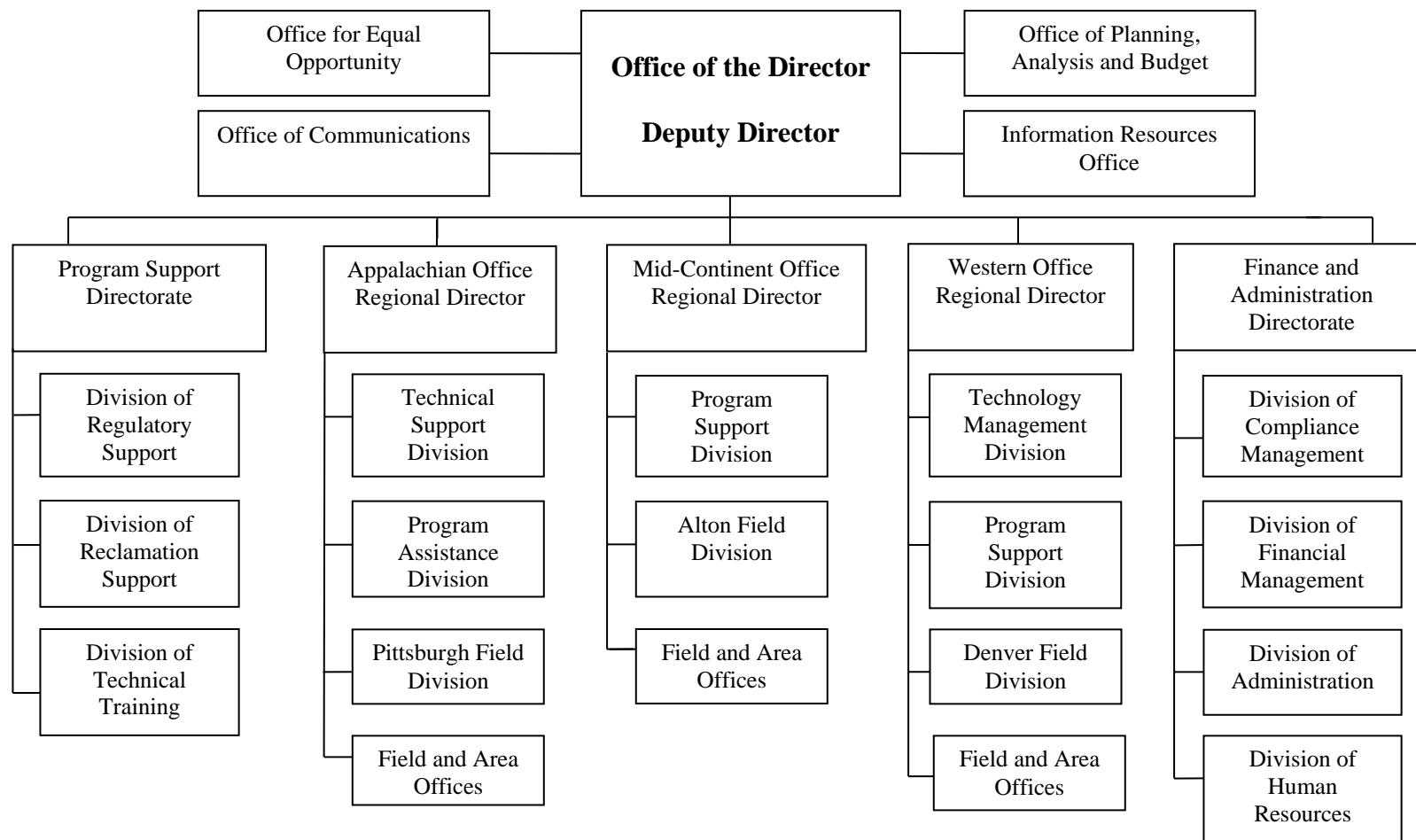
Notes:

1. GPRA Acres are non-acre measures (feet of highwalls or number of portals) that are converted by formula to acres and used to measure program performance.
2. The e-AMLIS inventory is not a fixed target that declines each year by the amount of reclamation accomplished. Instead, the inventory is dynamic and updated by States and Tribes on an ongoing basis. New AML problems are added to the inventory as they are identified, and cost data on existing AML problems are updated to reflect current reclamation costs.
3. Reproducing the data in this table from the public-facing e-AMLIS webpage may be problematic. The public-facing webpage has limits on the type and amount of query capabilities which impacts the ability of the public to reproduce OSMRE published e-AMLIS tables. An approved e-AMLIS account holder has more query functions than what is available to the general public. Additionally, the OSMRE e-AMLIS Coordinator performs a rigorous quality control and quality assurance process on the data before it is published. This is required due to complexities in the coding system of the e-AMLIS program and retrieving information that was historically entered differently (e.g. not georeferenced) and placed on a different system platform within the e-AMLIS program.

By State and Tribe Funding Data

FY 2018 Obligations for Grants, Cooperative Agreements and Federal Project Spending (DOLLARS IN THOUSANDS)						
STATE/TRIBE	Environmental Restoration			Environmental Protection (Regulatory)		TOTAL
	AML Funding	Federal Reclamation		Grants/Agreements		
	Emergency Projects	High Priority Projects	Emergency Projects	Non-Federal Lands	Federal Lands	
Alabama				1,270	20	1,290
Alaska					372	372
Arkansas				111		111
California		75				75
Colorado				618	1,707	2,325
Georgia						0
Illinois				3,223		3,223
Indiana				1,649		1,649
Iowa				44		44
Kansas				74		74
Kentucky				11,905	1,495	13,400
Louisiana				187		187
Maryland	750			900		1,650
Michigan		720				720
Mississippi				183		183
Missouri				205		205
Montana		2,317		402	1,624	4,343
New Mexico				229	633	862
North Dakota				560	435	995
Ohio				1,635		1,635
Oklahoma		99		711	476	1,286
Oregon						0
Pennsylvania				12,959		12,959
Rhode Island						0
South Dakota						0
Tennessee						0
Texas				2,633		2,633
Utah				150	2,382	2,532
Virginia				3,661		3,661
Washington			367			367
West Virginia				11,320		11,320
Wyoming				275	1,998	2,273
Cherokee Nation						0
Crow				572		572
Hopi				402		402
Navajo				1,800		1,800
N. Cheyenne						0
Total	750	3,211	367	57,678	11,142	73,148

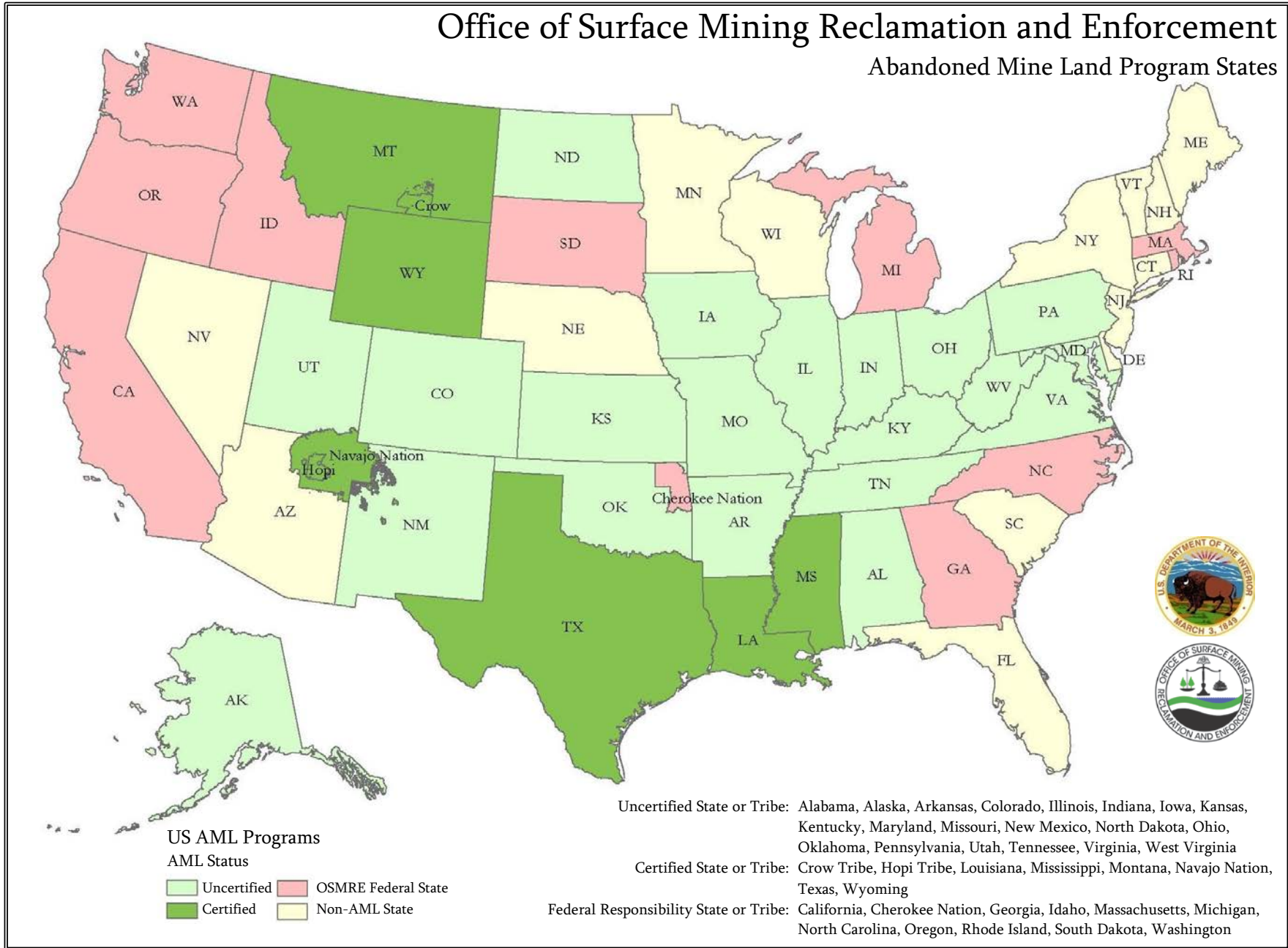
**Office of Surface Mining Reclamation and Enforcement
Organizational Chart**



Work is underway in 2019 to plan implementation, conduct analysis, and identify areas of collaboration within the new Department unified regions designated on August 22, 2018.

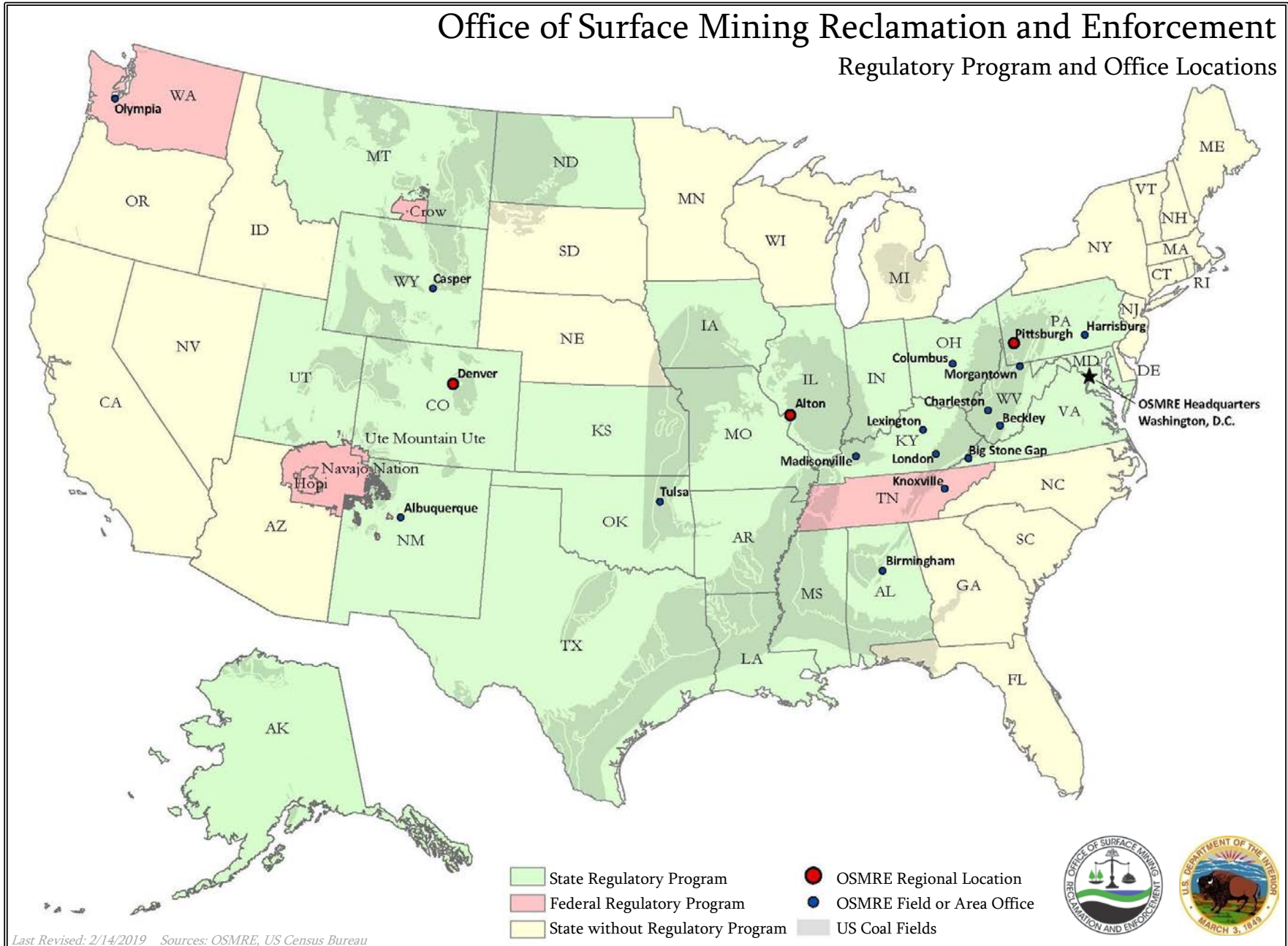
Office of Surface Mining Reclamation and Enforcement

Abandoned Mine Land Program States



Office of Surface Mining Reclamation and Enforcement

Regulatory Program and Office Locations



Office of Surface Mining Reclamation and Enforcement

Alignment of Legacy Regions to DOI Unified Regions

