SUPPLEMENT TO

MEMORANDUM OF UNDERSTANDING NO. WY 19

BETWEEN THE

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

AND THE

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

LAND QUALITY DIVISION

FOR

MANAGEMENT OF SURFACE MINING AND EXPLORATION FOR

LOCATABLE MINERALS

ON

PUBLIC LANDS

This is a Supplemental Memorandum to the general statewide Memorandum of Understanding (MOU) dated October, 1975, between the Governor of Wyoming and the United States by and through the State Director, Bureau of Land Management, Wyoming, United States, Department of the Interior.

This is a supplement to the general statewide Memorandum of Understanding (MOU), Number WY 19, dated October 1975, between the Governor of Wyoming and the United States by and through the State Director, Bureau of Land Management (BLM), Wyoming, U.S. Department of the Interior. This MOU replaces the MOU dated April 1990, signed by Governor Mike Sullivan and Bureau of Land Management Associate State Director F. William Eikenberry. That MOU replaced a Cooperative Agreement dated September 1981, signed by Governor Ed Herschler and BLM State Director Maxwell T. Lieurance.

A. Background

The Wyoming Department of Environmental Quality (WDEQ), Land Quality Division (LQD) and the Department of the Interior, Wyoming State Office, Bureau of Land Management (BLM) desire to work cooperatively to efficiently and effectively manage locatable mineral exploration and mining on Public lands. Public lands, as defined in 43 United States Code (U.S.C.) 1702 means any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the BLM, without regard to how the United States acquired ownership, except: (1) Lands located on the Outer Continental Shelf; and (2) Lands held for the benefit of Indians, Aleuts, and Eskimos, within the United States. In Wyoming, examples of locatable minerals may include, but not be limited to, gold, silver, copper, nickel, lead, zinc, platinum, diamonds, uranium, gypsum, bentonite, kaolonite, silica sand, zeolites, and uncommon varieties of pumice, sand, gravel, clay, limestone, or any other mineral that meets the requirements of the discovery test of the General Mining Law of 1872. The LQD regulates exploration and mining on all lands under Article 4 of the Wyoming Environmental Quality Act (W.S. § 35-11-401 *et.seq.*).

B. Purpose

The purpose of this MOU Supplement, hereafter referred to as MOU, is to:

1. Foster Federal-State coordination of procedures for the prevention of unnecessary or undue degradation as defined in 43 CFR (Code of Federal Regulations) 3809.5 with respect to locatable mineral operations on Public lands and to foster responsible land use with respect to mineral operations on Public lands under existing laws and regulations;

2. Prevent unnecessary administrative delay pursuant to 43 CFR 3809.200;

3. Prevent, to the degree allowed by law, duplication of administration and enforcement of reclamation regulations governing the exploration for, or mining of, minerals locatable under the Federal mining laws described in 43 CFR 3809; and

4. Minimize impacts to and ensure proper reclamation of those lands affected by exploration and/or mining.

C. Authority

This MOU is made under the authority of the general statewide MOU between BLM and LQD. Specifically, the BLM's participation in this MOU is authorized by 43 CFR 3809.200, which provides for a joint Federal-State program for State administration and enforcement of regulations in effect or due to come into effect, relating to unnecessary or undue degradation of the surface of Public lands disturbed by exploration for, or mining of, minerals locatable under the Federal mining laws as defined by 43 CFR 3809.5 and lands which contain minerals reserved to the United States. The State's participation in this MOU is authorized by W.S. §§ 9-2-121, 35-11-102, and 35-11-109(a)(ii), which recognize the policy of securing cooperation between agencies of the State and the Federal government in carrying out cooperative programs which are not inconsistent with the constitution and laws of the State.

D. Area of Cooperation

The BLM and LQD jointly agree that:

1. General

   a. The BLM and LQD shall, as the situation dictates, exercise appropriate responsibility and jurisdiction for the review and approval of all exploration and mining activity for locatable minerals on Public land and land with Federal reserved mineral estate. Each agency shall coordinate separate authorizations and exchange information to the degree necessary to prevent inconsistent action.

   b. The BLM and LQD shall assume responsibility for coordinating with the other agency for the review of permits, licenses, notices or plans of all exploration and mining operations on Public lands.

   c. The LQD will have lead responsibility for analyzing information regarding legal estates, landowner interests other than the BLM on and within ½ mile of the proposed area, data and analysis of impacts related to climatology, hydrology, overburden, soils, vegetation, wildlife, and wetlands.

   d. The BLM will have lead responsibility for analyzing archeological and paleontological resources, noxious weed issues, National Environmental Protection Act (NEPA) concurrence, and the Endangered Species Act (ESA) on Public lands.

   e. The agencies agree it is the responsibility of the operator to submit requests for any required permits, licenses, notices or plans to BLM and LQD.

   f. The review of any permits, licenses, notices or plans shall be in accordance with the time schedules set in the attached BLM and LQD "Wyoming

Operating Guidelines: Surface Mining Regulations for Locatable Minerals on Public Lands." Each agency shall notify the other agency of it's review schedule when comments should be received, subject to the other agency's need for additional time.

g. The application for a permit, license, notice or plan shall contain information to satisfy all the requirements of the BLM and LQD in one document.

h. No permit, license, notice or plan shall be granted without the concurrence of the other agency. A copy of all independent correspondence with the applicant shall be promptly forwarded to the other agency.

i. A committee, consisting of representatives from BLM field offices and LQD district offices and one each from the BLM and LQD State-level offices, shall be established to review and/or modify operating guidelines established in this MOU. In accordance with 43 CFR 3809.201, meetings to review this MOU shall be held as needed.

j. The BLM and LQD shall require improved access routes on Public lands to be part of the acreage included in the permit, license, notice or plan.

k. The BLM shall be responsible for ensuring that the operator has legal right to mine (i.e. valid mining claims) and shall promptly notify LQD if there is no right to mine.

l. The BLM shall satisfy any duties it may have under 43 CFR 3809.203 and 43 CFR 3809.411.

2. Bonding (Financial Guarantee)

a. The LQD shall establish the bond amount on Public lands required by 43 CFR 3809.500 and W.S. §35-11-417. The bond will be redeemable by both the Secretary of Interior and the State. The BLM shall review for bond adequacy and respond to LQD with concurrence or recommendations for modification. BLM's bonding authority is restricted to only the Public lands portion of the permit area where plans of operations or notices have been approved or accepted.

b. The LQD shall hold all bonds until release is authorized in writing by both agencies.

c. The BLM and LQD agree that the operator shall be responsible for providing updated reclamation bond estimates annually. Both the BLM and LQD shall review for bond adequacy. The BLM will respond to LQD within forty-five (45) days of receipt of the bonding information and give concurrence or recommendations for modification.

d. In the event of a bond forfeiture, LQD will administer the reclamation contract; therefore, Public land administrative fees (43 CFR 3809.554) would not apply.

3. Inspection and Enforcement

a. Both agencies shall conduct inspections as needed to meet their individual regulatory requirements.

b. All inspection reports and pertinent correspondence produced by one agency shall be promptly exchanged with the other as soon as they are completed.

c. The BLM shall have the primary inspection responsibility for drilling activities occurring on Public lands.

d. The LQD shall have the primary inspection responsibility for License to Explore, Limited Mining Operations, and Regular and Small Mining Operations.

e. Inspections should be conducted jointly where possible. Each agency shall notify the other, to the extent practicable, in scheduling the opportunities to conduct joint inspections. However, either agency may initiate independent inspections.

f. Each agency shall promptly notify the other of all violations of applicable laws, regulations, permits, permit requirements, and appropriate actions proposed or taken with respect to such violations.

g. Representatives of BLM and LQD shall be available to serve as legal witnesses in enforcement actions taken by either party.

h. Suction dredging shall comply with 43 CFR 3809.31 and 3809.200(b). LQD agrees to send BLM copies of all recreational gold dredging forms authorized which involve Public lands within fifteen (15) days of receipt. These authorizations state that permission from all surface and mineral owners and land management agencies be obtained prior to prospecting. Pursuant to 43 CFR 3809.31, BLM may establish specific areas where a notice or a plan will be required. In these specific areas BLM will be responsible for reviewing the notice and/or plan. The BLM will inform LQD whether Federally listed threatened or endangered species or their habitat may be affected by the proposed activities. BLM will inform LQD if any necessary mitigating measures may be required. Operations must not begin until BLM completes consultation or conferencing under the ESA.

E. Administrative and Legal Provisions

1. Nothing in this MOU will be construed as limiting or affecting in any way the authority or responsibility of the LQD or BLM or as binding on either party to perform beyond their respective authority or to require either party to assume or expend any monies in excess of appropriations available.

2. This MOU shall become effective as soon as signed by both parties and shall continue in force until formally terminated by either party. The termination shall follow a sixty (60) day notice in writing to the other agency regarding their desire to terminate the MOU. The MOU must be reviewed for adequacy and effectiveness as needed.

3. Amendments to this MOU may be proposed by either party and shall become effective upon approval in writing by both parties.

4. Any problems which cannot be resolved by the committee (see D(1)(i) above) shall be referred to the next higher level of authority for resolution. Unless otherwise specified, this will be the BLM Deputy State Director of Minerals & Lands and the LQD Administrator.

5. Officials Not to Benefit: No member of, or delegate to Congress, or any resident commissioner, shall be allowed to share in any part of this MOU, or shall be allowed to participate in any benefit that may arise from this MOU.

Dave Freudenthal — 11/19/03

Governor, State of Wyoming — Date

Robert A. Bennett — 11/19/03

State Director, Bureau of Land Management — Date

Attachment: Wyoming Operating Guidelines: Management of Surface Mining & Exploration for Locatable Minerals on Public Lands

WYOMING
OPERATING GUIDELINES

MANAGEMENT OF SURFACE MINING & EXPLORATION

FOR LOCATABLE MINERALS

ON PUBLIC LANDS

Attachment to Supplement to Memorandum of Understanding (MOU) No. 19
Between the United States Department of the Interior, Bureau of Land Management (BLM) and
the Wyoming Department of Environmental Quality/ Land Quality Division (LQD)

WYOMING OPERATING GUIDELINES

Management of Surface Mining & Exploration for Locatable Minerals on Public Lands

I. OVERVIEW 1

II. REVIEW AND AUTHORIZATION RESPONSIBILITIES. 2

A. BONDING 2
B. CULTURAL RESOURCES 2
C. THREATENED AND ENDANGERED SPECIES 2
D. PROJECT/PERMIT AREA CONCEPT 2
E. UNNECESSARY OR UNDUE DEGRADATION 3
F. RECLAMATION 3

III. PROCESSING CATEGORIES AND PROCEDURES 4

A. DIVISION OF RESPONSIBILITIES 5
B. EXPLORATION BY DRILLING 7
C. EXPLORATION BY DOZING. 8
D. LIMITED MINING OPERATIONS 9
E. REGULAR AND SMALL MINING OPERATIONS. 10
F. RELEASE OF FINANCIAL GUARANTEE. 11
G. MONITORING, COMPLIANCE, AND ENFORCEMENT. 12

IV. ATTACHMENTS 12

Attachment 1 Agency Contacts

Attachment 2 43 CFR 3809.420 Performance Standards

Attachment 3 List of State Guidelines

I. OVERVIEW

These Operating Guidelines describe the regulatory procedures followed by the Bureau of Land Management (BLM) and the Wyoming Department of Environmental Quality WDEQ, Land Quality Division (LQD) for the management of surface mining and exploration for locatable minerals on Public lands. The guidelines also apply to lands with private surface rights and reserved public minerals as defined in 43 CFR 3809.2 and 3809.31(d).

Under the Federal mining laws (see 43 CFR 3809.5 for a definition), a person has a statutory right to go upon open (unappropriated and unreserved) Public lands to locate a mining claim and develop the locatable mineral resources. This statutory right carries with it the responsibility to prevent unnecessary or undue degradation of the Public lands and to provide for reclamation pursuant to W.S. §35-11-102 and W.S. §35-11-402 and 43 CFR 3809.5.

Lands currently under review for inclusion in the wilderness system, and those designated as wilderness must be managed according to the 43 CFR 3802 regulations and BLM Wilderness Interim Management Policy.

Locatable minerals are characterized in 43 CFR 3812.1 as follows:

> "Whatever is recognized as a mineral by the standard authorities, whether metallic or other substance, when found in public lands in quantity and quality sufficient to render the lands valuable on account thereof, is treated as coming within the purview of the mining laws. Deposits of oil, gas, coal, potassium, sodium, phosphate, oil shale, native asphalt, solid and semisolid bitumen, and bituminous rock including oil-impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is refined or quarried, the deposit of sulphur in Louisiana and New Mexico belonging to the United States can be acquired under the mineral leasing laws (see paragraph 43 CFR 3100.0-3(a)(1)), and are not subject to location and purchase under the United States mining laws. The so called "common variety" mineral materials and petrified wood on the public lands may be acquired under the Materials Act, as amended." (43 CFR 3600)

The policy and purpose of the WDEQ are defined by the Wyoming Environmental Quality Act as:

> "Whereas pollution of the air, water and land of this state will imperil public health and welfare, create public or private nuisances, be harmful to wildlife, fish and aquatic life, and impair domestic, agricultural, industrial, recreational and other beneficial uses; it is hereby declared to be the policy and purpose of this act to enable the state to prevent, reduce and eliminate pollution; to preserve, and enhance the air, water and reclaim the land of Wyoming; to plan the development, use, reclamation,

preservation and enhancement of the air, land and water resources of the state; to preserve and exercise the primary responsibilities and rights of the state of Wyoming; to retain for the state the control over its air, land and water and to secure cooperation between agencies of the state, agencies of other states, interstate agencies, and the federal government in carrying out these objectives." (W.S. §35-11-102)

II. REVIEW AND AUTHORIZATION RESPONSIBILITIES

A. BONDING (FINANCIAL GUARANTEE)

The Supplement To Memorandum of Understanding No. WY 19 (MOU) provides that LQD shall establish the required bond amount for the permit or project area based on site conditions with BLM's concurrence where Public lands are affected. LQD will hold the bond until reclamation has been completed. Bonds will be made payable to WDEQ/LQD and the Secretary of the Department of the Interior. Bonds shall be sufficient to reclaim all affected lands using a 3rd party contractor and including administrative costs.

Prior to bond release or reduction the LQD shall notify the BLM and schedule a joint inspection. This inspection on location shall determine if all or portions of the reclamation work has been completed, and all the requirements have been met as described in the permit, license, notice or plan.

B. CULTURAL RESOURCES

Cultural resource investigations shall be conducted by BLM if cultural and/or paleontological values are discovered after a plan of operation has been approved. All cultural resource investigations/reports will be kept confidential and shall not be part of the permit documents available for public review (43 CFR 3809.420(b)(8)(iii)).

C. THREATENED AND ENDANGERED SPECIES

If threatened and/or endangered species will be impacted by proposed mineral activities, BLM shall advise the LQD and operator(s) that destruction of such resources could result in legal action, and offer to assist with project modifications that will avoid impact (43 CFR 3809.420(b)(7)).

D. PROJECT/PERMIT AREA CONCEPT/OPERATION

"'Operation' means all of the activities, equipment, premises, facilities, structures, roads, rights-of-way, waste and refuse areas excluding uranium mill tailings and mill

facilities, within the Nuclear Regulatory Commission license area, storage and processing areas, and shipping areas used in the process of excavating or removing overburden and minerals from the affected land or for removing overburden for the purpose of determining the location, quality or quantity of a natural mineral deposit or for the reclamation of affected lands;" (W.S. 35-11-103 (e)(viii)). For BLM's definition of operation see 43CFR 3809.5.

"'Affected land' means the area of land from which overburden is removed, or upon which overburden, development waste rock or refuse is deposited, or both, including access roads, haul roads, mineral stockpiles, mill tailings (excluding uranium mill tailings and mill facilities, within the Nuclear Regulatory Commission license area), impoundment basins (excluding uranium mill tailings impoundments), and all other lands whose natural state has been or will be disturbed as a result of the operations;" (W.S. §35-11-103 (e)(xvi)).

The BLM project area (defined in 43 CFR 3809.5) will coincide with the LQD permit, license, notice or plan areas where possible. The LQD will be responsible for including all affected Public lands in the permit, license, notice or plan areas including access roads as part of the project area.

E. UNNECESSARY OR UNDUE DEGRADATION

"Unnecessary or undue degradation" means conditions, activities, or practices that:

(1) Fail to comply with one or more of the following: The performance standards in 43 CFR 3809.420, and/or W.S. §35-11-402; and/or the terms and conditions of an approved permit, license, notice or plan; and/or other Federal and State laws related to environmental protection and protection of cultural resources;

(2) Are not "reasonably incident" to prospecting, mining, or processing operations as defined in 43 CFR 3715.0-5; or

(3) Fail to attain a stated level of protection or reclamation required by specific laws in areas such as Wild and Scenic Rivers, BLM-administered portions of the National Wilderness System, and BLM-administered National Monuments and National Conservation Areas.

F. RECLAMATION

"Reclamation" as defined by LQD is the process of rehabilitating "an area of land affected by mining to use for grazing, agricultural, recreation, wildlife purposes, or any other purpose of equal or greater value" to that land before it was mined. "The

process may require contouring, terracing, grading, resoiling, revegetation, compaction and stabilization, settling ponds, water impoundments, diversion ditches, and other water treatment facilities," to prevent water pollution, soil erosion, and flooding problems on lands affected by, or adjoining exploration, mining, or milling activities (W.S. § 35-11-103 (e)(I)).

Reclamation activities are required following disturbance of Public lands by exploration, mining, or milling operations and must be done to meet applicable performance standards and conditions required by BLM and LQD at the conclusion of operations. BLM reclamation standards are in the attached 43 CFR 3809.420 performance standards.

Reclamation, as defined in 43 CFR 3809.5 contains the following components where applicable:

(1) Isolation, control, or removal of acid-forming, toxic, or deleterious substances;

(2) Regrading and reshaping to conform with adjacent land forms, facilitate revegetation, control drainage, and minimize erosion;

(3) Rehabilitation of fisheries or wildlife habitat;

(4) Placement of growth medium and establishment of self-sustaining revegetation;

(5) Removal or stabilization of buildings, structures, or other support facilities;

(6) Plugging of drill holes and closure of underground workings;

(7) Providing for post-mining monitoring, maintenance, or treatment; and

Adequacy of reclamation on public lands will be determined jointly by BLM and LQD.

III. PROCESSING CATEGORIES AND PROCEDURES

Processing of permits, licenses, notices or plans by the BLM and LQD are described in the illustrations at the end of this section. BLM regulations establish three threshold levels of mining disturbance, each requiring different processing efforts. The LQD regulations segregate processing by type of mining activity, mineral involved, or amount of disturbance.

A. DIVISION OF RESPONSIBILITY

The level of impact or disturbance dictates whether written authorization is required by the BLM and the LQD. The use of mechanical equipment or other methods that result in noticeable disturbance will always require a permit, license, notice or plan.

For the BLM, following receipt of a complete plan of operation or a complete modification to a plan of operation, and before BLM acts on it, the BLM will publish a notice of the availability of the plan in either a local newspaper of general circulation or a NEPA document and will accept public comment for at least 30 calendar days on the plan of operation or the modification to a plan of operations consistent with 43 CFR 3809.411.

When the LQD permitting process requires Public notice LQD will notify BLM. The LQD Public notice shall serve to address the BLM's requirement for Public notice. LQD shall forward to the appropriate BLM office, a copy or transcript of all comments received during the Public comment period.

Proposed activities that utilize mechanical equipment (e.g., suction dredge, back hoe, dozer, drill rig, etc.) require authorization by BLM and/or LQD. Activities that do not involve the use of mechanical equipment may still require a BLM notice, a BLM plan, or a LQD Letter of Authorization.

The permit, license, notice or plan processing procedures for the LQD are listed in Illustration A and are described below.

(1) Letter of Authorization: Approval letter written by the LQD Administrator for small disturbances or minimal impacts that are infrequent in nature (e.g., not larger than 3 inch suction recreational dredging pursuant to W.S. §35-11-401 (e)(v). This corresponds to "casual use" as defined by BLM. "Casual use" means activities ordinarily resulting in no or negligible disturbance of the lands or resources (43 CFR 3809.5).

(2) Exploration by Drilling: All exploratory drilling for locatable minerals pursuant to W.S. §35-11-404 and LQD Noncoal Rules and Regulations, Chapter 8.

(3) Exploration by Dozing: All exploration work done by mechanical earth moving equipment pursuant to W.S. §35-11-414 and Noncoal Rules and Regulations, Chapter 5.

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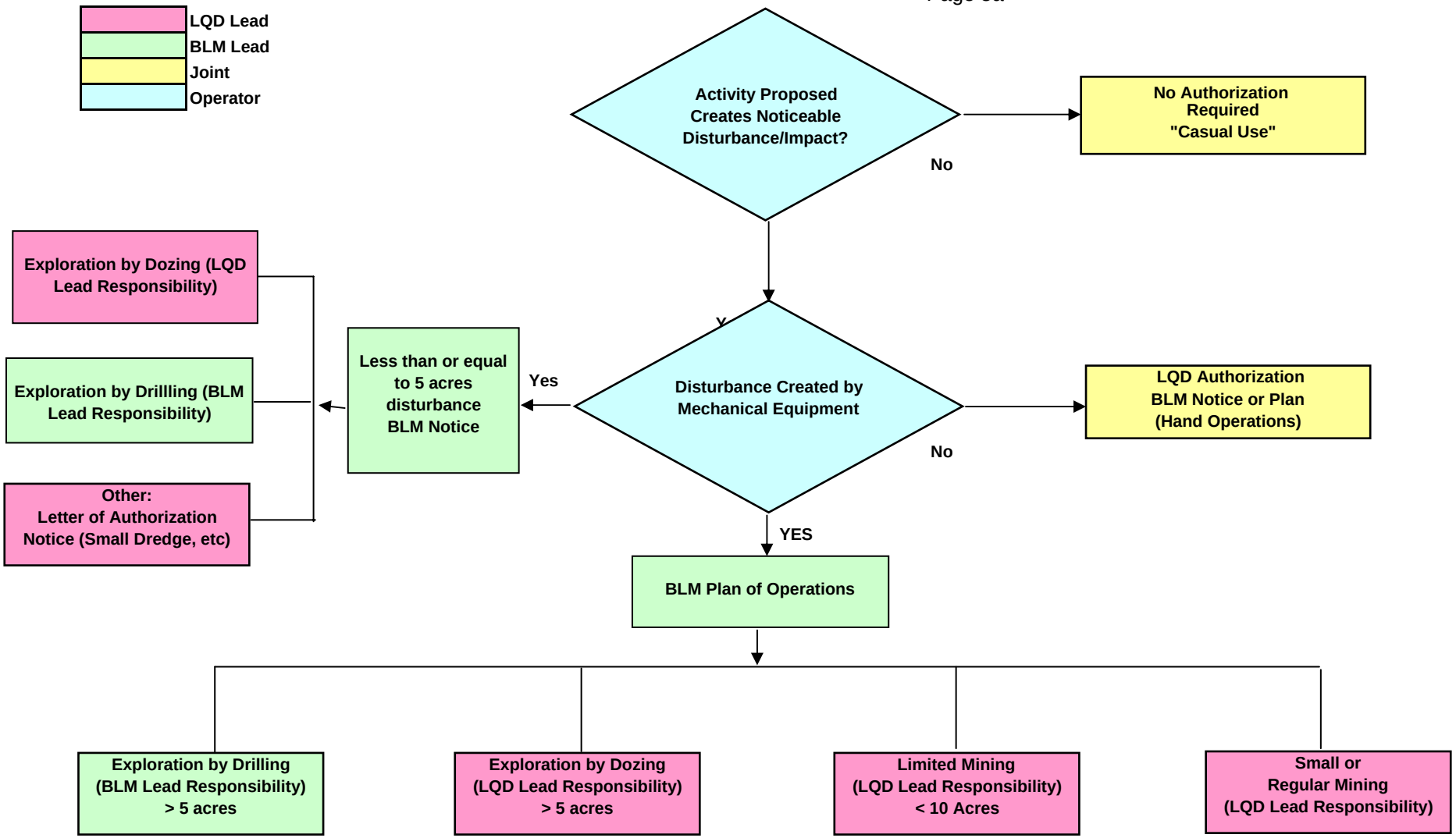
(4) Limited Mining Operations: A mining disturbance of 10 acres or less for the life of the mine. This limited mining operation (LMO) can only be obtained

GENERAL

DIVISION OF RESPONSIBILITY*

(Illustration A)



***This flow chart and subsequent flow charts are intended to demonstrate the normal patterns and sequences in which various events take place under the guidelines of the MOU. The user of these charts is advised that exceptions will occur.**

for limestone, feldspar, sand, gravel, scoria, ballast, dolomite, or shale pursuant to W.S. §35-11-401 (e)(vi) and Noncoal Rules and Regulations, Chapter 10.

(5) Small Mining Permit or amendment: This permit is issued for operations involving not more than 10,000 yards of overburden and topsoil combined, and/or 10 acres of affected land in any one year pursuant to W.S. §35-11-401(j) and Noncoal Rules and Regulations, Chapter 9.

(6) Regular Mining Permit or amendment: All larger mining operations not covered under other permits, licenses, notices or plans pursuant to W. S. §35-11-406 and Noncoal Rules and Regulations, Chapter 2.

(7) Permit revisions, modifications and updates:

a) LQD will review submissions within a 90 day review period pursuant to LQD Noncoal Rules and Regulations, Chapter 7;

b) Non-Significant Revisions (NSR's), Minor Revisions, and Incidental Boundary Revisions (IBR's) generally require no public notice; and

c) Major Revisions - require public notice pursuant to Noncoal Rules and Regulations, Chapter 7, Section 3.

(8) Annual Reports:

a) Copies will be provided to the BLM; and

b) Bonds will be reviewed with each annual report pursuant to W. S. §35 -11-411.

B. EXPLORATION BY DRILLING

The operator will contact the BLM and LQD with a drilling proposal. In conjunction with the LQD Drilling Notification, a notice or plan will be submitted to the BLM.

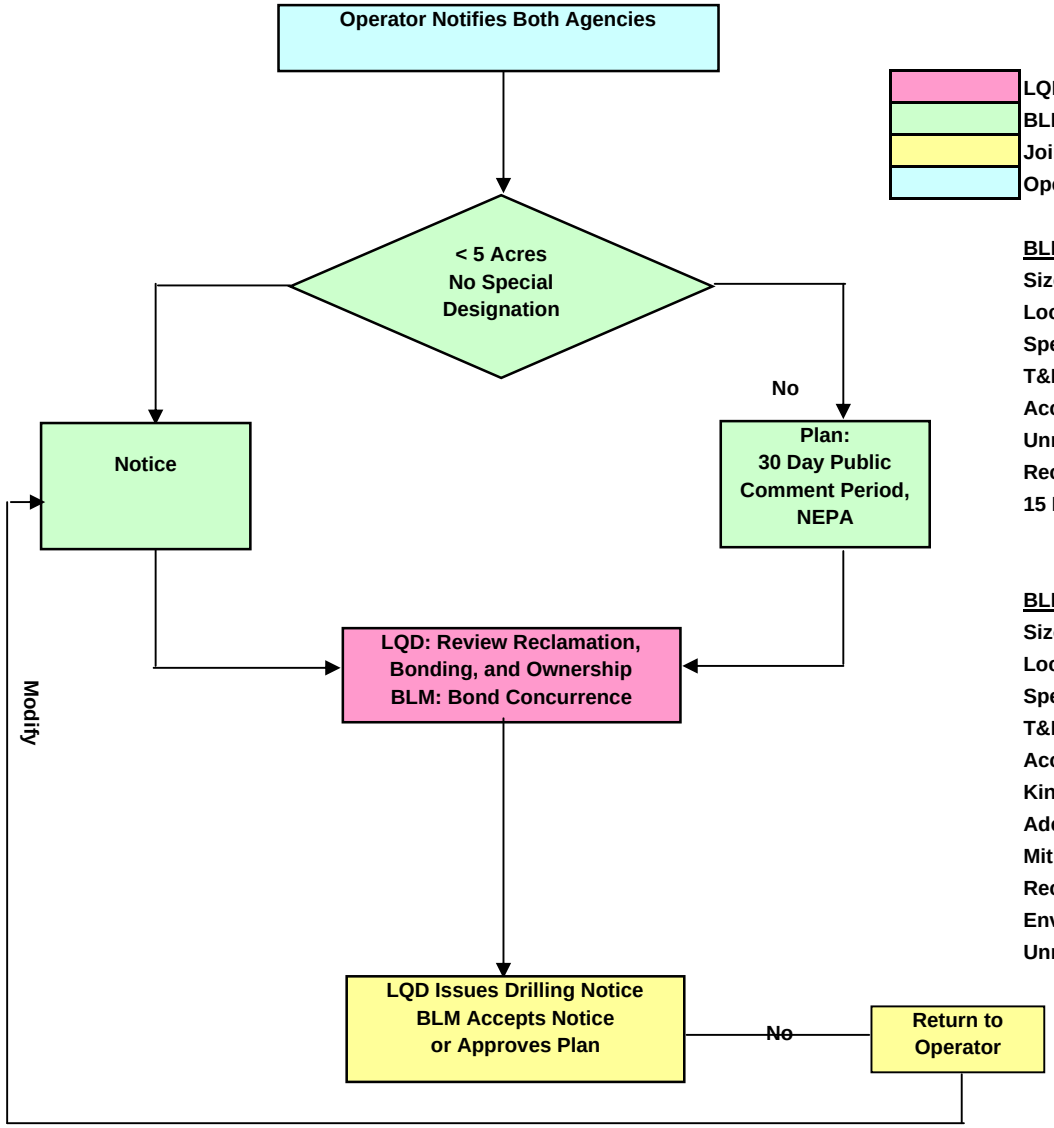
The receiving agency shall transmit a copy of the Drilling Notification, notice, or plan to the other agency. Where Public land is involved, the LQD will contact the local BLM office upon receipt of a drilling proposal. If BLM takes no action within fifteen (15) days, the LQD will issue the Drilling Notification.

A notice describing the proposed action on Public land will be submitted for BLM review at least fifteen (l5) days prior to initiation of operations. A plan is required for disturbance in excess of five (5) acres or when the proposal is located in an area having special designation status. The BLM has thirty (30) days to review and approve a plan. A plan of operations must be approved by the BLM before the operations commence.

The BLM and LQD must review and concur on both the proposed action and the estimate of bond. The LQD shall forward a copy of the Drill Hole Abandonment Report to the BLM for their records. The BLM shall assume primary responsibility for inspection of all drilling operations and proper hole abandonment on Public lands and on split estate lands where BLM has approved a plan of operations.

It should be noted that drilling operations may be conducted within an approved mine permit area, without the need for a separate drilling notification, provided that the permit and reclamation bond are revised to cover said drilling activities (Illustration B).

EXPLORATION BY DRILLING, (Illustration B)



LQD Responsibility
BLM Responsibility
Joint Responsibility
Operator

BLM Notice

Size (< 5 acres)
Location and Project Area
Special Designations
T&E/Cultural
Access
Unnecessary & Undue Degradation
Reclamation
15 Day Review

BLM Plan of Operations

Size (> 5 acres)
Location and Project Area
Special Designations
T&E/Cultural
Access
Kind of Activity
Adequate Bonding
Mitigation
Reclamation Proposal
Environmental Assessment (EA)
Unnecessary and Undue Degradation

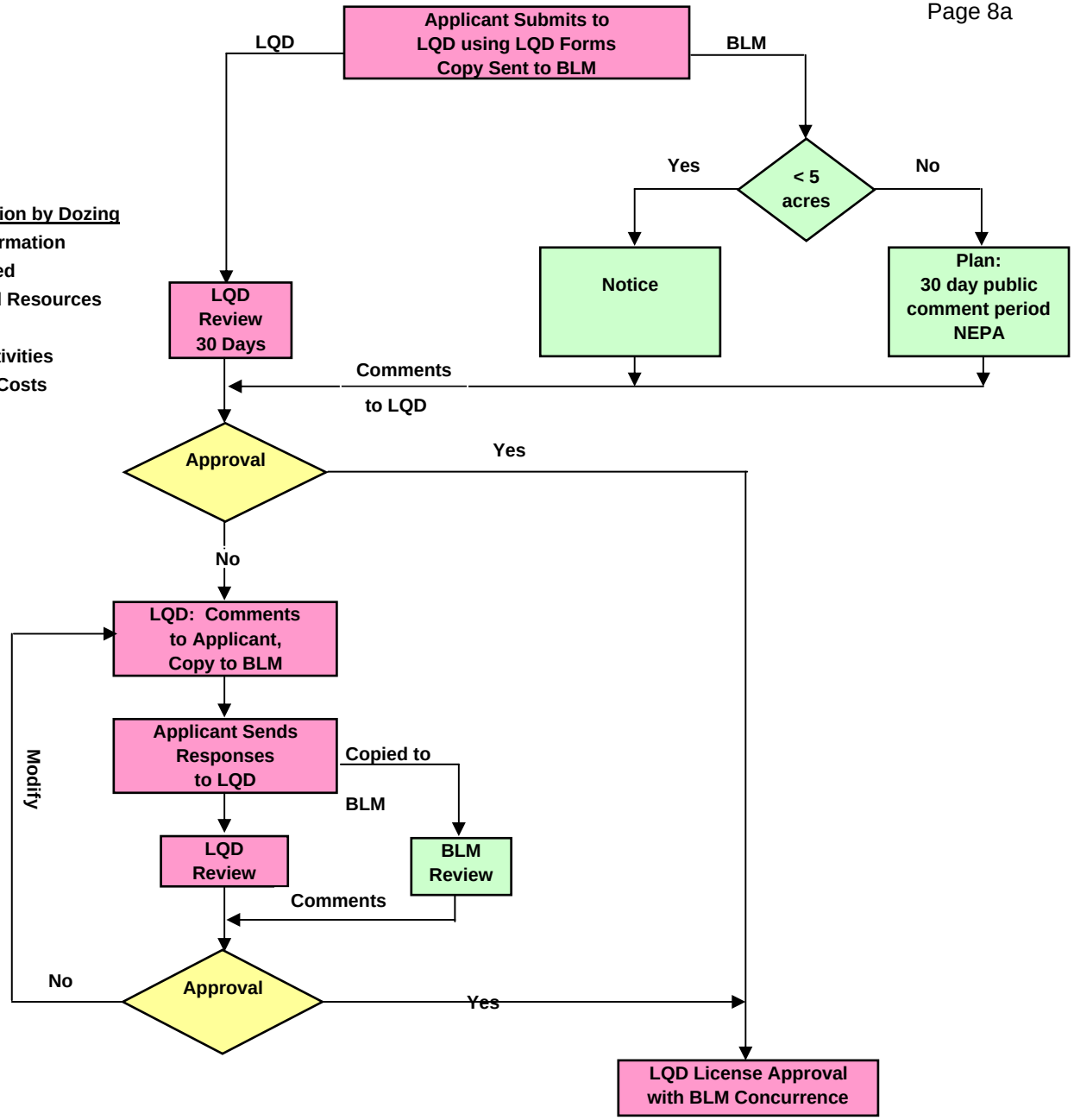
LQD Exploration by Drilling

Form 9DN
Operator Information
Reclamation Cost
Surface/Mineral Ownership

C. EXPLORATION BY DOZING

An application for a License to Explore by Dozing (LE) is submitted for review and issued by the LQD to authorize mineral exploration and evaluation activities. The operator will provide LQD with an extra copy of the application. LQD will forward a copy of the application to BLM. If the proposed operation for bulk sampling exceeds 1,000 tons of presumed ore, the operator must submit a plan of operation to BLM. The operator cannot sell any mineral under the LQD's LE. The only material which may be removed will be that necessary for assay and testing purposes. Within thirty (30) days following the receipt of a complete application, the LQD Administrator will notify the applicant of the bond amount required. The LE may be renewed annually. In those cases where an operator is proposing to conduct both exploration by dozing and drilling, drilling may be conducted under an LE, eliminating the need for both an LE and a Drilling Notification (Illustration C).

EXPLORATION BY DOZING, (Illustration C)



LQD Exploration by Dozing

Operator Information
Lands Involved
Land Use and Resources
Map(s)
Proposed Activities
Reclamation Costs

LQD Responsibility
BLM Responsibility
Joint Responsbility
Operator

BLM Notice

Size (< 5 acres)
Location and Project Area
Special Considerations
T&E/Cultural
Access
Unnecessary and Undue Degradation
Reclamation
15 Day Review

BLM Plan of Operations

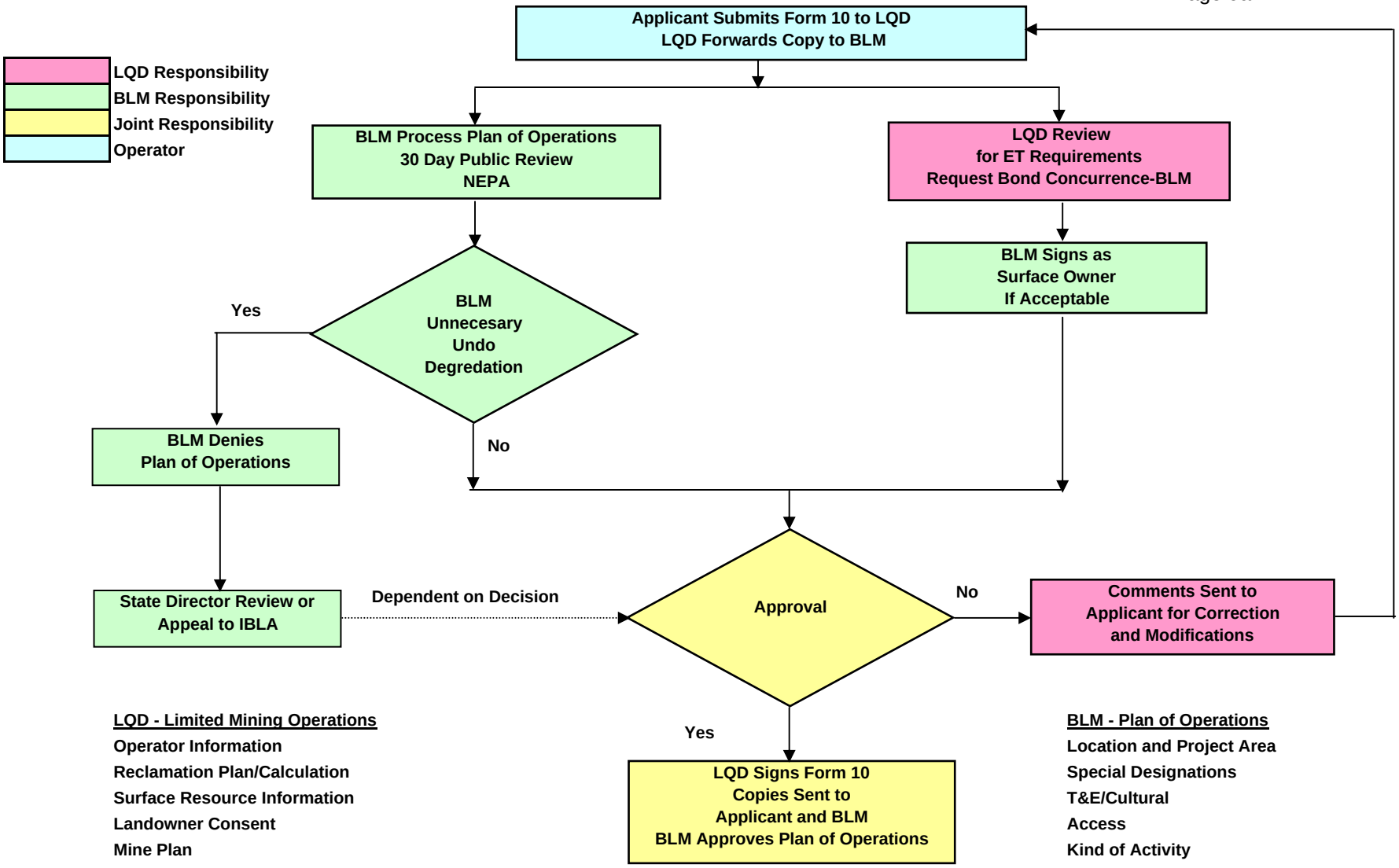
Size (> 5 acres or 1,000 tons or greater

Location and Project Area
presumed ore) 43CFR 3809.11(b)
Special Designations
T&E/Cultural
Access
Kind of Activity
Adequate Bonding
Mitigation
Reclamation Proposal
Environmental Assessment (EA)
Unnecessary and Undue Degradation
30 Day Review

D. LIMITED MINING OPERATIONS

The application for a Limited Mining Operation should be submitted on LQD Form 10. The operator will provide LQD with an extra copy of the application. The LQD will forward a copy of the application to BLM. The LQD can only request a maximum bond of $1,100.00 per acre by State statute. If the BLM asks for additional bond coverage, the LQD will require this amount from the operator. The LQD will hold the additional bond. An annual report should be submitted by the operator on the anniversary of the approval date. Only those minerals listed in W.S. §35-11-401 (e)(vi) may be mined under a Limited Mining Operation. It should be noted that although LQD does not require baseline data, mine and/or reclamation plans for a Limited Mining Operation, BLM does require a Plan of Operations for this activity (Illustration D).

LIMITED MINING OPERATIONS, (Illustration D)



LQD - Limited Mining Operations

Operator Information
Reclamation Plan/Calculation
Surface Resource Information
Landowner Consent
Mine Plan

BLM - Plan of Operations

Location and Project Area
Special Designations
T&E/Cultural
Access
Kind of Activity
Adequate Bonding
Mitigation
Reclamation Proposal
Environmental Assessment (EA)
Unnecessary and Undue Degradation
30 Day Review

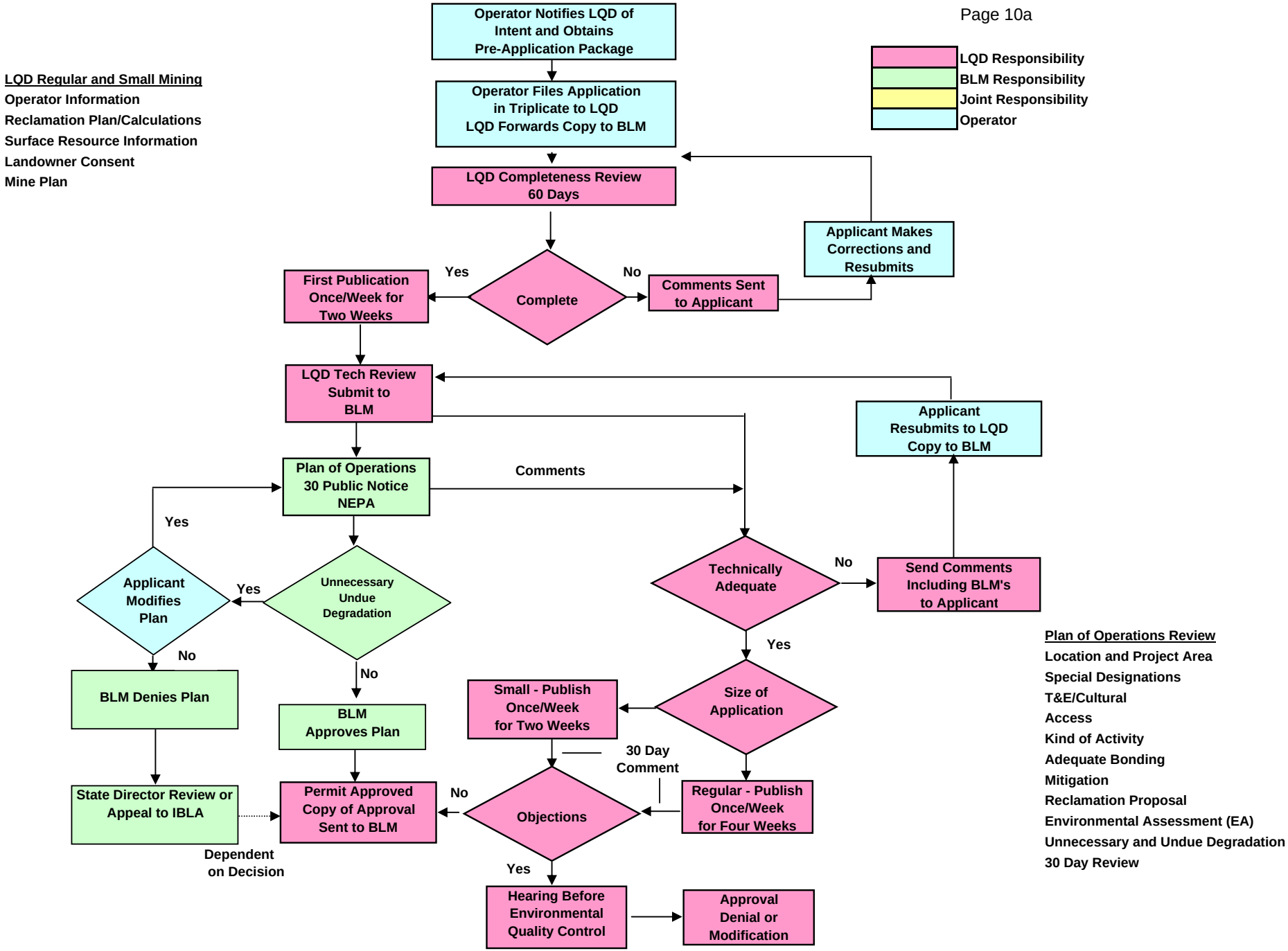
E. REGULAR AND SMALL MINING OPERATIONS

The LQD completeness review is a sixty (60) day review cycle that continues until all necessary information is submitted for LQD to begin a technical evaluation. The operator will provide LQD with an extra copy of the application. The LQD will forward a copy of the application to BLM. The necessary copies of revised pages will be requested from the applicant, during the review, so the BLM copy of the application can be updated with any resubmissions (See Illustration E). The BLM will be notified of any changes to review timetables.

If any objections to the application are received during the public comment period, a hearing before the Environmental Quality Council may be scheduled. Any concerns may be worked out between the applicant and protestant before the hearing. The hearing can then be canceled if all objections have been withdrawn in writing. Once a hearing is scheduled, all contact with the LQD is through the Attorney General's Office (Illustration E).

The BLM will evaluate the bond estimate for any concerns with bond coverage. The LQD requires the initial bond amount to cover any disturbances during the first year of operations. The bond coverage is re-evaluated with each annual report and inspection.

REGULAR & SMALL MINING PERMITS, (Illustration E)



F. RELEASE OF FINANCIAL GUARANTEE

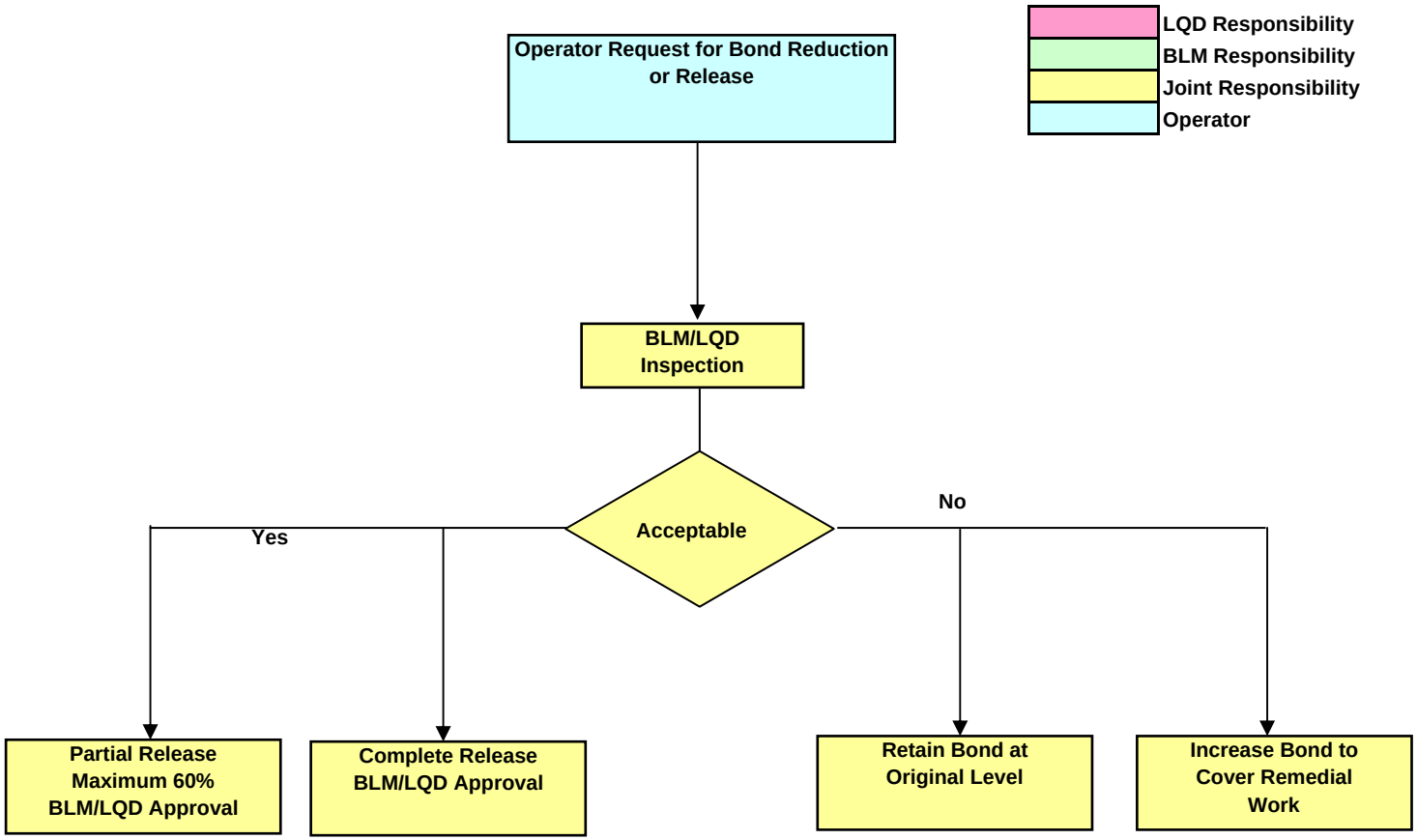
The BLM and LQD may jointly release or reduce the bond for any portion of a permit, license, notice or plan if the operator has successfully completed all or a portion of the reclamation of the operation pusuant to W.S. §35-11-411(d). The operator shall notify the LQD that reclamation has occurred and may request a reduction in the bond. If Public lands are included in the request for reduction of the bond, LQD will notify BLM. The BLM and LQD will inspect the reclaimed area. After an inspection of the operation, the BLM and the LQD will make a joint determination whether to release any portion of the bond.

As reclamation progresses on a permitted site, the BLM and LQD may reduce the bond amount held to cover only those lands remaining to be reclaimed/revegetated. The bond amount held will be no more than the amount sufficient to cover the remaining reclamation liability using a third party contractor. The BLM and LQD may release up to 60% of an operator's bond for any portion of a particular project area when both agencies determine *partial* successful reclamation has been completed. The BLM and LQD may release 100% of the operator's bond for a particular project area when both agencies determine successful reclamation has been completed.

The operator/permittee may submit a single bond for a permit redeemable by both the Secretary of Interior and the State. The operator/permittee may, however, submit a separate bond for Public lands within a permit area redeemable by both the Secretary of Interior and the State. In this scenario, the operator/permittee would need to submit a separate bond for private/fee lands redeemable by the State.

For a plan of operation, BLM will either post in the local BLM office or publish notice of final bond release in a local newspaper of general circulation and accept comments for thirty (30) calendar days (See 43 CFR 3809.590(c)). Subsequently, the BLM will notify the LQD in writing, who in turn, will notify the operator of approval or denial of bond release (Illustration F).

FINANCIAL GUARANTEE, (Illustaration F)



G. MONITORING, COMPLIANCE, AND ENFORCEMENT

Both the BLM and LQD shall periodically inspect all operations and surface disturbance for compliance with the approved permits, licenses, notices or plans. The BLM and LQD shall, whenever possible, participate in a joint annual inspection of all mining activities operating under a plan of operation.

The BLM and LQD shall initially attempt to mitigate any compliance problems with the operator through discussions. A time frame shall be set for any corrective measures needed. If mitigation is not completed in the agreed time, additional enforcement action will be considered.

Operators shall be notified that they are in noncompliance when: (1) an operator is mining or exploring for minerals without a permit, license, notice or plan or, (2) an operator fails to follow an approved permit, license, notice or plan. The BLM or LQD shall notify the operator with a certified letter, plus a notice of noncompliance by the BLM or a formal Notice of Violation issued by LQD.

When noncompliance is discovered by one agency, the other agency shall be notified immediately. The operator shall be directed to cease those operations that are in violation until proper permitting, bonding, plan approval, and reviews are conducted.

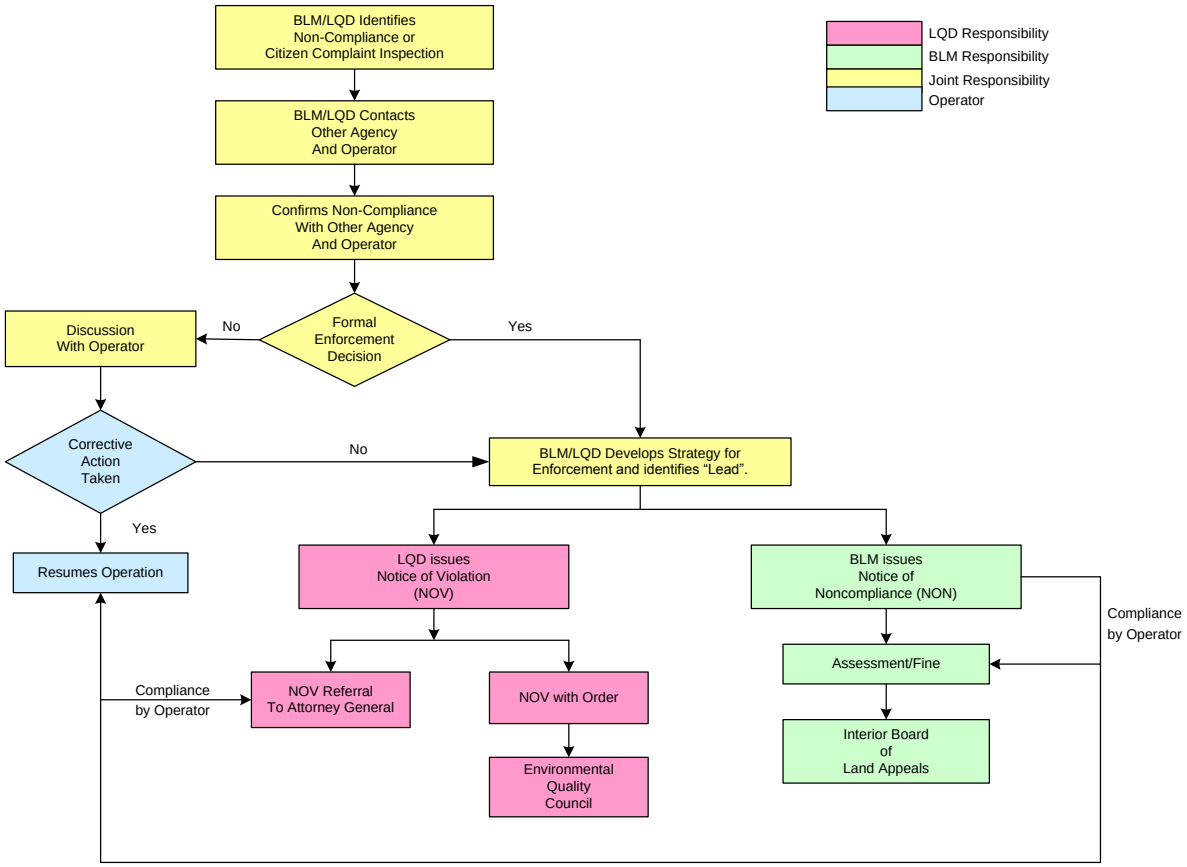
The BLM and/or the LQD shall arrange a joint meeting with the operator to discuss: (1) the level of noncompliance; (2) an inspection of the area of noncompliance; and (3) completion dates within which the operator must be in compliance. The operator is responsible for reclamation of all areas disturbed by an unauthorized operation.

It is the intent of this MOU not to duplicate actions by both agencies. Open communication between the BLM and LQD is necessary so there is full support from each agency on the enforcement action taken. In most cases, one notice will be issued by either the BLM or LQD with a letter of support from the other agency for the file. Once an enforcement action reaches the assessment/fine stage, it usually is out of the hands of the field personnel and referred to the legal staff (Illustration G).

IV. ATTACHMENTS

Attachment I	Agency Contacts
Attachment 2	43 CFR 3809.420 Performance Standards
Attachment 3	List of State Guidelines

COMPLIANCE AND ENFORCEMENT, Illustration G



Bureau of Land Management, Wyoming

'3809' – Surface Management [Locatable Minerals] State, District and Field Office Contacts (updated Feb. 8, 2012)

Wyoming State Office, 5353 Yellowstone Road, Cheyenne, WY 82009; (307) 775-6082, Fax (307) 775-6203

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High Desert District, 280 Highway 191 North, Rock Springs, WY 82901; (307) 352-0256, Fax (307) 352-0329

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Kemmerer Field Office, 312 Highway 189 North, Kemmerer, WY 83101; (307) 828-4500, Fax (307) 828-4539

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William Mack, AFM for Minerals and Lands	(307) 828-4548	wmack@blm.gov
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Geologist (vacant)		

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Casper Field Office, 2987 Prospector Dr, Casper WY 82604; (307) 261-7600, Fax (307) 261-7587

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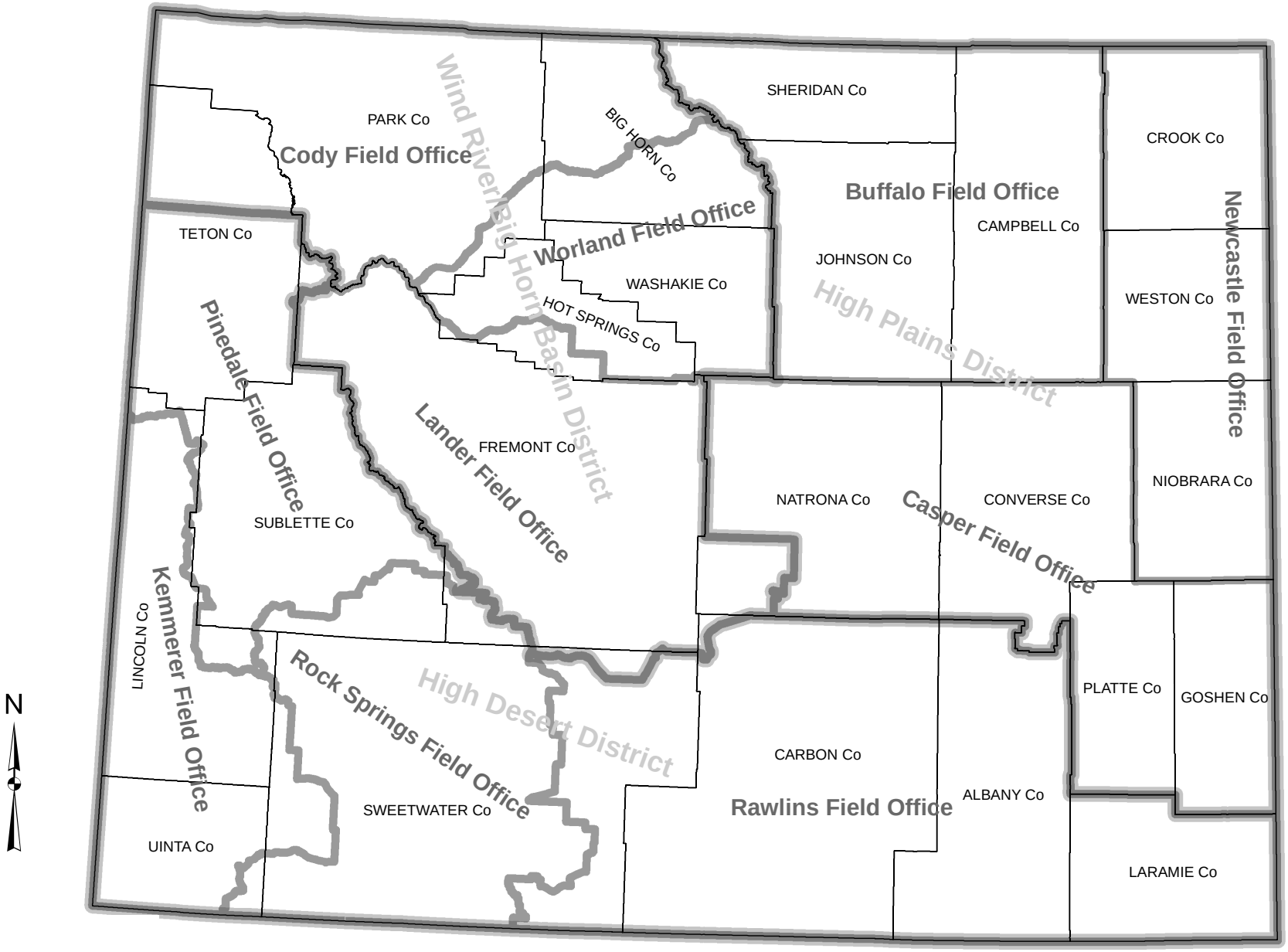
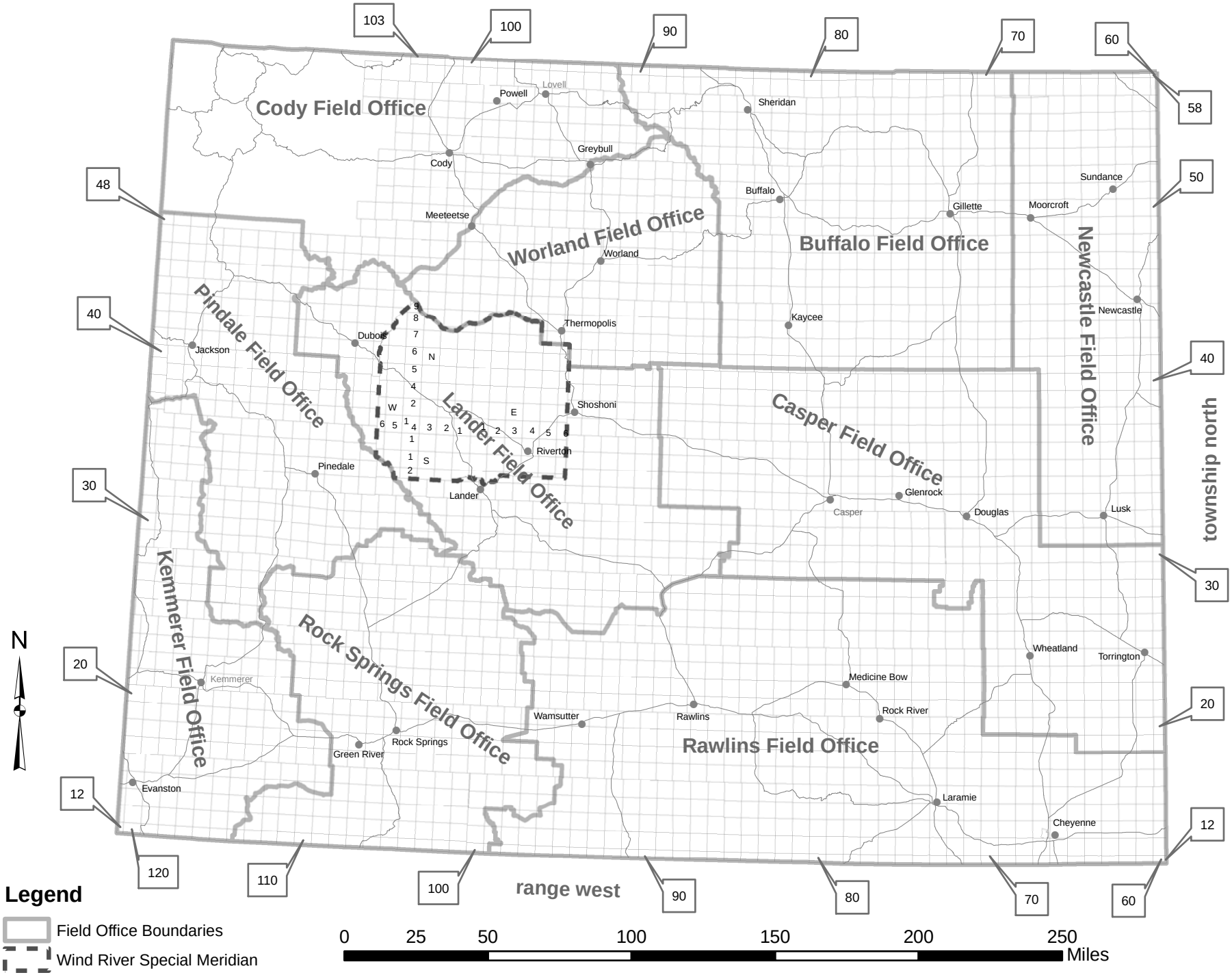
Alt: Pam French (term)	(307) 347-5100	pfrench@blm.gov

Bureau of Land Management
District and Field Office Administrative Boundaries



May 2010 update, 2003 Supplement to MOU no. 19, Operating Guidelines Attachment 1, page 4 of 7, new figure 1 of 2

Wyoming BLM Field Office Administrative Boundaries, with select towns, major roads and township grid.



May 2010 update, 2003 Supplement to MOU 19, Operating Guidelines Attachment 1, Page 4 of 7, new figure 2 of 2

Wyoming Department of Environmental Quality/Land Quality Division
‘3809' Program Contacts
Revised April 1, 2003

Wyoming Dept. of Environmental Quality
Land Quality Division
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Wyoming Department of Environmental Quality/Land Quality Division
‘3809' Program Contacts (Continued)

Revised April 1, 2003

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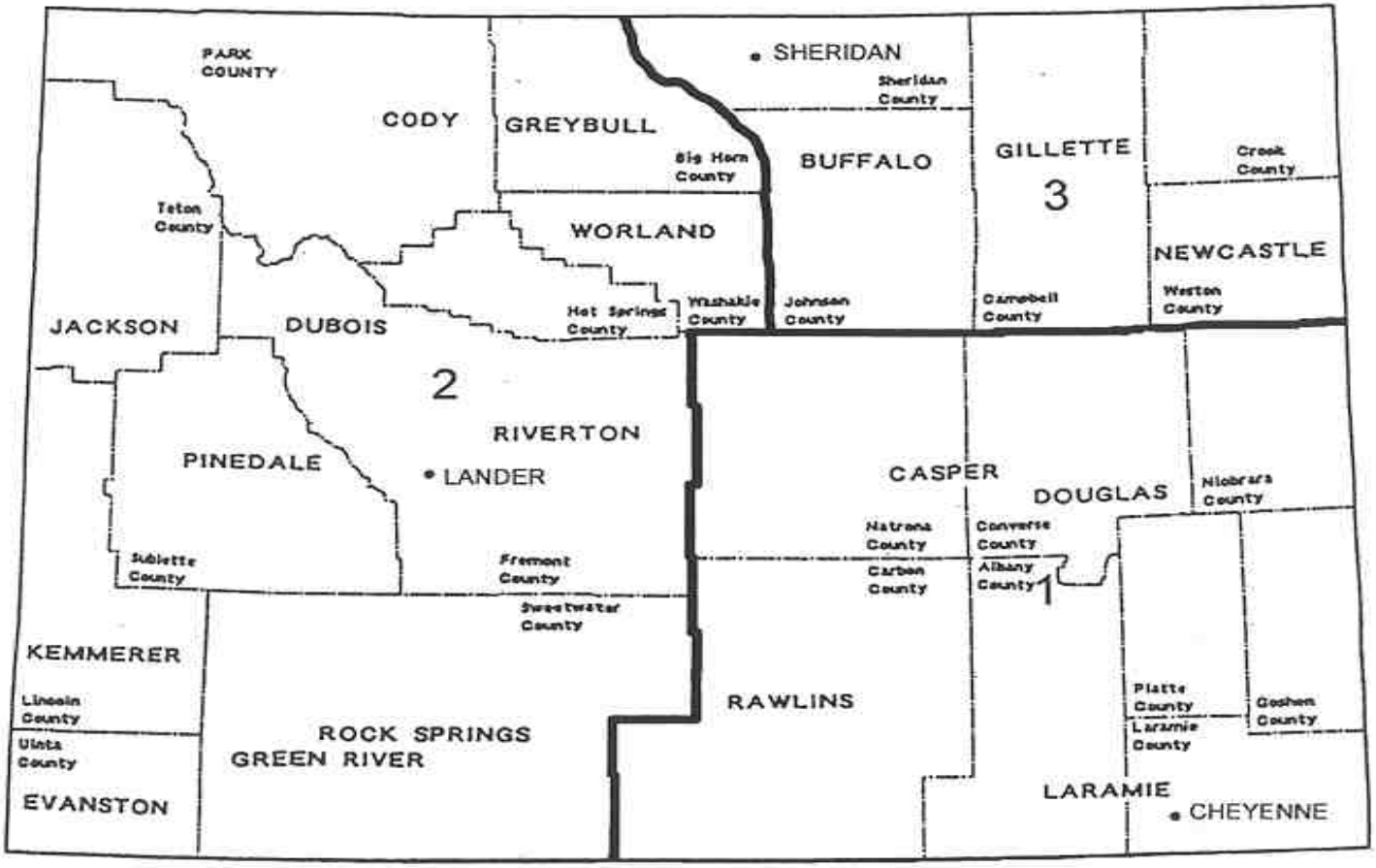
Mark Taylor	(307) 672-6488	MTaylo@state.wy.us

STATE OF WYOMING
DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND QUALITY DIVISION DISTRICTS



Bureau of Land Management
43 CFR (Code of Federal Regulations) Part 3800

The following is an excerpt from the 43 CFR Part 3800:

Sec. 3809.420 What performance standards apply to my notice or plan of operations?

The following performance standards apply to your notice or plan of operations:

(a) General performance standards.

(1) Technology and practices. You must use equipment, devices, and practices that will meet the performance standards of this subpart.

(2) Sequence of operations. You must avoid unnecessary impacts and facilitate reclamation by following a reasonable and customary mineral exploration, development, mining and reclamation sequence.

(3) Land-use plans. Consistent with the mining laws, your operations and post-mining land use must comply with the applicable BLM land-use plans and activity plans, and with coastal zone management plans under 16 U.S.C. 1451, as appropriate.

(4) Mitigation. You must take mitigation measures specified by BLM to protect public lands.

(5) Concurrent reclamation. You must initiate and complete reclamation at the earliest economically and technically feasible time on those portions of the disturbed area that you will not disturb further.

(b) Environmental performance standards.

(1) Air quality. Your operations must comply with applicable Federal, Tribal, State, and, where delegated by the State, local government laws and requirements.

(2) Water. You must conduct operations to minimize water pollution (source control) in preference to water treatment. You must conduct

operations to minimize changes in water quantity in preference to water supply replacement. Your operations must comply with State water law with respect to water use and water quality.

(i) Surface water. (A) Releases to surface waters must comply with applicable Federal, Tribal, State, interstate, and, where delegated by the State, local government laws and requirements.

(B) You must conduct operations to prevent or control the discharge of pollutants into surface waters.

(ii) Ground water. (A) You must comply with State standards and other applicable requirements if your operations affect ground water.

(B) You must conduct operations to minimize the discharge of pollutants into ground water.

(C) You must conduct operations affecting ground water, such as dewatering, pumping, and injecting, to minimize impacts on surface and other natural resources, such as wetlands, riparian areas, aquatic habitat, and other features that are dependent on ground water.

(3) Wetlands and riparian areas. (i) You must avoid locating operations in wetlands and riparian areas where possible, minimize impacts on wetlands and riparian areas that your operations cannot avoid, and mitigate damage to wetlands and riparian areas that your operations impact.

(ii) Where economically and technically feasible, you must return disturbed wetlands and riparian areas to a properly functioning condition. Wetlands and riparian areas are functioning properly when adequate vegetation, land form, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve floodwater retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses, and support greater biodiversity.

(iii) You must mitigate impacts to wetlands under the jurisdiction of the U.S. Army Corps of Engineers (COE) and other waters of the United States in accord with COE requirements.

(iv) You must take appropriate mitigation measures, such as restoration or replacement, if your operations cause the loss of nonjurisdictional wetland or riparian areas or the diminishment of their proper functioning condition.

(4) Soil and growth material. (i) You must remove, segregate, and preserve topsoil or other suitable growth material to minimize erosion and sustain revegetation when reclamation begins.

(ii) To preserve soil viability and promote concurrent reclamation, you must directly transport topsoil from its original location to the point of reclamation without intermediate stockpiling, where economically and technically feasible.

(5) Revegetation. You must--

(i) Revegetate disturbed lands by establishing a stable and long-lasting vegetative cover that is self-sustaining and, considering successional stages, will result in cover that is--

(A) Comparable in both diversity and density to pre-existing natural vegetation of the surrounding area; or

(B) Compatible with the approved BLM land-use plan or activity plan;

(ii) Take all reasonable steps to minimize the introduction of noxious weeds and to limit any existing infestations;

(iii) Use native species, when available, to the extent technically feasible. If you use non-native species, they must not inhibit re-establishment of native species;

(iv) Achieve success over the time frame approved by BLM; and

(v) Where you demonstrate revegetation is not achievable under this

paragraph, you must use other techniques to minimize erosion and stabilize the project area, subject to BLM approval.

(6) Fish, wildlife, and plants. (i) You must minimize disturbances and adverse impacts on fish, wildlife, and related environmental values.

(ii) You must take any necessary measures to protect Federally proposed or listed threatened or endangered species, both plants and animals, or their proposed or designated critical habitat as required by the Endangered Species Act.

(iii) You must take any necessary action to minimize the adverse effects of your operations, including access, on BLM-defined special status species.

(iv) You must rehabilitate fisheries and wildlife habitat affected by your operations.

(7) Cultural, paleontologic, and cave resources. (i) You must not knowingly disturb, alter, injure, or destroy any scientifically important paleontologic remains or any historic, archaeologic, or cave-related site, structure, building, resource, or object unless--

(A) You identify the resource in your notice or plan of operations;

(B) You propose action to protect, remove or preserve the resource;

and (C) BLM specifically authorizes such action in your plan of operations, or does not prohibit such action under your notice.

(ii) You must immediately bring to BLM's attention any previously unidentified historic, archaeologic, cave-related, or scientifically important paleontologic resources that might be altered or destroyed by your operations. You must leave the discovery intact until BLM authorizes you to proceed. BLM will evaluate the discovery and take action to protect, remove, or preserve the resource within 30 calendar days after you notify BLM of the discovery, unless otherwise agreed to by the operator and BLM, or unless otherwise provided by law.

(iii) BLM has the responsibility for determining who bears the cost

of the investigation, recovery, and preservation of discovered historic, archaeologic, cave-related, and paleontologic resources, or of any human remains and associated funerary objects. If BLM incurs costs associated with investigation and recovery, BLM will recover the costs from the operator on a case-by-case basis, after an evaluation of the factors set forth in section 304(b) of FLPMA.

(c) Operational performance standards.

(1) Roads and structures. (i) You must design, construct, and maintain roads and structures to minimize erosion, siltation, air pollution and impacts to resources.

(ii) Where it is economically and technically feasible, you must use existing access and follow the natural contour of the land to minimize surface disturbance, including cut and fill, and to maintain safe design.

(iii) When commercial hauling on an existing BLM road is involved, BLM may require you to make appropriate arrangements for use, maintenance, and safety.

(iv) You must remove and reclaim roads and structures according to BLM land-use plans and activity plans, unless retention is approved by BLM.

(2) Drill holes. (i) You must not allow drilling fluids and cuttings to flow off the drill site.

(ii) You must plug all exploration drill holes to prevent mixing of waters from aquifers, impacts to beneficial uses, downward water loss, or upward water loss from artesian conditions.

(iii) You must conduct surface plugging to prevent direct inflow of surface water into the drill hole and to eliminate the open hole as a hazard.

(3) Acid-forming, toxic, or other deleterious materials. You must incorporate identification, handling, and placement of potentially acid-forming, toxic or other deleterious materials into your operations, facility design, reclamation, and environmental monitoring

programs to minimize the formation and impacts of acidic, alkaline, metal-bearing, or other deleterious leachate, including the following:

(i) You must handle, place, or treat potentially acid-forming, toxic, or other deleterious materials in a manner that minimizes the likelihood of acid formation and toxic and other deleterious leachate generation (source control);

(ii) If you cannot prevent the formation of acid, toxic, or other deleterious drainage, you must minimize uncontrolled migration of leachate; and

(iii) You must capture and treat acid drainage, or other undesirable effluent, to the applicable standard if source controls and migration controls do not prove effective. You are responsible for any costs associated with water treatment or facility maintenance after project closure. Long-term, or post-mining, effluent capture and treatment are not acceptable substitutes for source and migration control, and you may rely on them only after all reasonable source and migration control methods have been employed.

(4) Leaching Operations and Impoundments. (i) You must design, construct, and operate all leach pads, tailings impoundments, ponds, and solution-holding facilities according to standard engineering practices to achieve and maintain stability and facilitate reclamation.

(ii) You must construct a low-permeability liner or containment system that will minimize the release of leaching solutions to the environment. You must monitor to detect potential releases of contaminants from heaps, process ponds, tailings impoundments, and other structures and remediate environmental impacts if leakage occurs.

(iii) You must design, construct, and operate cyanide or other leaching facilities and impoundments to contain precipitation from the local 100-year, 24-hour storm event in addition to the maximum process solution inventory. Your design must also include allowances for snowmelt events and draindown from heaps during power outages in the design.

(iv) You must construct a secondary containment system around vats, tanks, or recovery circuits adequate to prevent the release of toxic

solutions to the environment in the event of primary containment failure.

(v) You must exclude access by the public, wildlife, or livestock to solution containment and transfer structures that contain lethal levels of cyanide or other solutions.

(vi) During closure and at final reclamation, you must detoxify leaching solutions and heaps and manage tailings or other process waste to minimize impacts to the environment from contact with toxic materials or leachate. Acceptable practices to detoxify solutions and materials include natural degradation, rinsing, chemical treatment, or equally successful alternative methods. Upon completion of reclamation, all materials and discharges must meet applicable standards.

(vii) In cases of temporary or seasonal closure, you must provide adequate maintenance, monitoring, security, and financial guarantee, and BLM may require you to detoxify process solutions.

(5) Waste rock, tailings, and leach pads. You must locate, design, construct, operate, and reclaim waste rock, tailings, and leach pads to minimize infiltration and contamination of surface water and ground water; achieve stability; and, to the extent economically and technically feasible, blend with pre-mining, natural topography.

(6) Stability, grading and erosion control. (i) You must grade or otherwise engineer all disturbed areas to a stable condition to minimize erosion and facilitate revegetation.

(ii) You must recontour all areas to blend with pre-mining, natural topography to the extent economically and technically feasible. You may temporarily retain a highwall or other mine workings in a stable condition to preserve evidence of mineralization.

(iii) You must minimize erosion during all phases of operations.

(7) Pit reclamation. (i) Based on the site-specific review required in Sec. 3809.401 and the environmental analysis of the plan of operations, BLM will determine the amount of pit backfilling required, if any, taking into consideration economic, environmental, and safety factors.

(ii) You must apply mitigation measures to minimize the impacts created by any pits or disturbances that are not completely backfilled.

(iii) Water quality in pits and other water impoundments must comply with applicable Federal, State, and where appropriate, local government water quality standards. Where no standards exist, you must take measures to protect wildlife, domestic livestock, and public water supplies and users.

(8) Solid waste. (i) You must comply with applicable Federal, State, and where delegated by the State, local government standards for the disposal and treatment of solid waste, including regulations issued under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.).

(ii) You must remove from the project area, dispose of, or treat all non-mine garbage, refuse, or waste to minimize their impact.

(9) Fire prevention and control. You must comply with all applicable Federal and State fire laws and regulations, and take all reasonable measures to prevent and suppress fires in the project area.

(10) Maintenance and public safety. During all operations and after mining--

(i) You must maintain structures, equipment, and other facilities in a safe and orderly manner;

(ii) You must mark by signs or fences, or otherwise identify hazardous sites or conditions resulting from your operations to alert the public in accord with applicable Federal and State laws and regulations; and

(iii) You must restrict unaccompanied public access to portions of your operations that present a hazard to the public, consistent with Secs. 3809.600 and 3712.1 of this title.

(11) Protection of survey monuments. (i) To the extent economically and technically feasible, you must protect all survey monuments, witness corners, reference monuments, bearing trees, and line trees against damage or destruction.

(ii) If you damage or destroy a monument, corner, or accessory, you must immediately report the matter to BLM. BLM will tell you in writing how to restore or re-establish a damaged or destroyed monument, corner, or accessory.

Wyoming Department of Environmental Quality
Land Quality Division

Annotated List of LQD Guidelines

The documents listed below are guidelines only, and should not be interpreted by applicants or DEQ staff as mandatory. They were developed as a result of requests by operators and Land Quality Division (LQD) personnel for checklists to assist them in the preparation and evaluation of comprehensive applications for mine permits, exploration licenses, and other approvals. If operators wish to use methods other than those described in the Guidelines, they should discuss these in advance with the DEQ/LQD.

Guideline 1 Topsoil and Overburden

- Procedures for soil surveys, soil mapping and soil analysis
- Description of Geology and Overburden
- Procedures for sampling and assessment of overburden
- Pre-and Post-mining Slope assessment
- Pre-and Post-mining fertility assessment especially as related to selenium in spoils
- Acceptable parameters, analytical procedures, and suitability criteria for topsoil and overburden

Guideline 2 Vegetation

- Designing and executing pre-mining baseline vegetation inventories
- Documenting pre-mining land uses and capabilities
- Establishing and evaluating post-mining land uses
- Developing revegetation success goals
    - Building a seed mix
    - Seeding/husbandry practices
    - Wildlife habitat considerations
- Establishing quantitative and qualitative vegetation parameters to measure reclamation success for final bond release
    - Sampling procedures
    - Sample size
    - Statistical tests
- Evaluating revegetation success

Guideline 3 Radiological Survey

- Detecting areas having anomalous radiation
- Gamma survey methods

Guideline 4 In-Situ Mining

- Defines LQD terminology including terms specific to in-situ mining operations
- Reviews required elements of an LQD mine permit (see Guideline 6) with a focus on methods and standards for testing water quality during research, development and production.
- Discusses concerns related to drilling techniques, well completion, modeling of chemical processes in wells, production zone confinement, and the monitoring well network
- Briefly discusses controlling excursion events, subsidence
- Attachment I discusses water sampling collection protocol, parameters, and analysis in detail
- Attachment II discusses procedures for selecting distance between horizontal excursion monitoring wells and an in-situ well field

Guideline 5 Wildlife

- Discusses developing a description of vertebrate fauna of the area
- Habitat and vegetation inventory guidance
- Wildlife inventory techniques for big game, upland game birds, waterfowl and shore birds, raptors, passerine birds, other mammals, Endangered Species and State-listed Rare Species, reptiles and amphibians, aquatic sampling
- Data analysis
- Discussion of federal laws
- Monitoring plans
- Required contents for mitigation plans for Migratory Birds of High Federal Interest (MBHFI) and Raptors

Guideline 6 Organization for an Application for a "Permit to Mine" or "Amendment" to existing permit for "Large Mines" (defined by LQD as more than 10,000 cy topsoil and overburden removed per year or 10 acres disturbed per year)

- Gives brief outline of the following topics. Other guidelines in this packet address these issues more specifically:
- Adjudication information
  - Required LQD forms
  - Reclamation Bond
  - Surface owner consent
  - Tabulation and maps of surface, mineral and water rights owners on and adjacent to the permit (appendix A and B)
  - Legal description of permit area (Appendix C)
  - Map of permit area showing public or private ROWs, utility lines, gas lines, etc.
  - Proof of publication, notice of surface owners, and filing with county clerks
  - Written verification of city or county approval for mining operation, if applicable (i.e. zoning)

Guideline 6 (continued)

- Supporting information: information describing the following:
  - Appendix D-1 Land use of area
  - Appendix D-2 History of area
  - Appendix D-3 Archaeological Investigation (kept separate from rest of permit)
  - Appendix D-4 Climatology records
  - Appendix D-5 Topography, Geology, and Overburden assessment
  - Appendix D-6 Hydrology assessment
  - Appendix D-7 Soil assessment
  - Appendix D-8 Vegetation inventory
  - Apendix D-9 Wildlife inventory
  - Appendix D-10 Wetlands inventory
  - Appendix D-11 Cultural and Paleontological Assessment
  - Appendix D-12 Playas
  - Mine Plan
  - Reclamation Plan

Guideline 6A Format for Permit Applications, Amendment and Revisions for Coal Mines (Similar to Guideline 6. For Coal–not applicable so not outlined)

Guideline 6A-R Format for a Coal Permit Renewal (Similar to Guideline For Coal–not applicable so not outlined)

Guildeine 6S Guideline for a Small Mine Permit or Small Mine Permit Amendment (Similar to Guideline 6, but streamlined in some areas (e.g. data collection), not outlined here)

Guideline 7 Does Not Exist

Guideline 8 Hydrology

- Surface Water
  - Guidance for pre-mining studies (precipitation, evapo-transpiration, runoff, watershed characterization, water quality, water rights)
  - Design of temporary diversion, culverts, ponds, monitoring stations
  - Topography and watershed design
  - Construction of permanent streams, diversions, ponds
  - Reclamation monitoring

Guideline 8 (continued)

- Ground Water
  - Pre-mining studies (geologic framework, aquifer characteristics, water rights)
  - Impacts of de-watering
  - Aquifer reclamation, surface/water table interactions
  - Monitoring
- Probable Hydrologic Consequences
  - Surface water, ground water
  - Water quality
- Water Rights
- Important Habitats

Guideline 9 Alluvial Valley Floors (Coal only, not outlined)

Guideline 10 Fencing

- Fencing strategies for different animal species and situations

Guideline 11 Describing Cultural and Paleontological Resources

- Discusses evaluation process: completeness review and technical analysis. Required elements are:
  - Survey of area (typically Class III) by qualified archaeaologist/paleontologist
  - Written description of area
  - Map of survey area, locations of all cultural and paleontological resources, locations of proposed mining disturbances
  - Inventory of significant articles
  - Report
    - Appendix D3-A Prehistoric overview
    - Appendix D3-B Paleontological overview
- Mitigation plan (if necessary) developed in consultation with archaeologist/paleontologist, SHPO, Federal land managers, and LQD
- List of Applicable laws for operator's reference

Guideline 12 Bonding (Has coal mine emphasis - i.e. big mines)

- Lists Wyoming Environmental Quality Act Statutes and LQD Rules and Regulations pertaining to bonding
- Data sources and explanation of costs used in this guideline
- Charts estimating costs associated with different machinery
- Charts estimating costs to
  - Blast overburden
  - Ripping overburden, removing asphalt, or scarifying surfaces
  - Move material using dozers, scrapers, scraper fleets, truck-shovel operations, or motor graders

Guideline 12 Bonding (continued)

- Remove culverts, railroad spurs, facilities, and monitoring stations
- Cost estimates for handling fencing, electric power lines
- Cost estimates for abandoning cased drill holes and monitor wells

Guideline 13 Permitting Sedimentation Ponds, Sediment Control Structures, and Process Water Ponds

- Assists applicants in complying with requirements of LQD and Water Quality Division (WQD) for structures listed
- Primarily a Coal mining document
- Discusses sedimentation and effluent limits for
  - Process water ponds
  - Impoundments
  - Mill or slurry tailings ponds
- Discusses design parameters
- Discusses self-inspection regimes recommended for the operator

Guideline 14 Recommended procedures for developing monitoring program on permanently reclaimed lands (this guideline is coal-focused)

- Follows up on Guideline 2, focuses solely on reclamation success
- Relationship between baseline inventory and bond release evaluation discussed
- Implementation of a monitoring program: defining land units
- Sampling parameters, time frames, and intensities:

Guideline 15 Alternate Sediment Control (For Coal–not applicable so not outlined)

Guideline 16 Gold Mining and Exploration

- Required Permits defined (Registration form, License to Explore by Dozing, Drilling Notification, Small or Large Mine Permits)
- LQD and BLM office locations, contacts
- List of Wyoming Class I Waters
- Guidelines for Recreational placer gold panning, dredging and sluicing: includes sample application form
  - Seasonal time limits
  - Turbidity limits
  - Disturbance to streambanks, shoreline vegetation, wetlands, pohibited
  - No material from outside waterway shall be discharged into waterway
  - Fueling done away from streams to prevent pollution
  - Permission required on from landowner, land manager, or valid claim owner
- Guidelines for Exploration for precious metals placer deposits adjacent to Class I streams in Wyoming

Guideline 16 (continued)

- No recreation gold activities allowed w/in wet portions of Class I streams
- Permission required on from landowner, land manager, or valid claim owner
- Need WQD stormwater permit and pollution prevention plan

- Permit from Army Corps of Engineers or State Engineer may be required
- Environmental protections outlined: sluice water, sediment discharge, stream bank protection, channel protection, location of stockpiles, waste disposal, mercury in streams

Guideline 17 Permanent Post-mine impoundments

- Defines stock pond, major impoundment, depression/playa, replacement feature, and enhancement feature
- Discusses information required in permit regarding impoundments
- Discusses the justification of impoundments for post-mine land use, reclamation bond requirements