

BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL

STATE OF WYOMING

March, 1998

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| IN THE MATTER OF THE |) | |
| PROPOSED REVISION OF |) | |
| THE LAND QUALITY |) | STATEMENT OF PRINCIPAL |
| DIVISION RULES RELATED |) | REASONS FOR ADOPTION |
| TO THE REGULATION OF |) | |
| COAL MINING |) | |

COAL - Chapters 1, 2, 4, 8, 12, 16 and Appendix A

Rule Package 1K - Miscellaneous Technical Issues

Wyoming's proposed rule revisions contained in this Miscellaneous Technical Issues package have been divided into the following categories:

Fish and Wildlife Habitat and Resource Information, items 1 - 5;
Shrub Density, item 6;
Certification of Maps by a Registered Professional Engineer, item 7;
Geologic descriptions, items 8 - 9;
Topsoil Substitutes, item 10;
Special Bituminous Coal Mines, item 11;
Archaeological and Historic Resources, items 12 - 13;
Permit Transfers - Public Notice, item 14;
Civil Penalties, item 15; and
Appendix A, items 16 - 18.

In order to maintain Wyoming's approved State Program for the environmental regulation of coal mining, as well as maintain Federal funding for Wyoming's Abandoned Mine Land Program, the State must keep its laws, regulations, and policies consistent with and as effective as the Federal laws and regulations. Through various 30 CFR Part 732 letters and final rule Federal Register notices, the Office of Surface Mining Reclamation and Enforcement (OSM) has notified Wyoming that numerous portions of its regulations are no longer as effective as the Federal regulations or as stringent as the Surface Mining Control and Reclamation Act of 1977 (SMCRA). Several of these identified deficiencies are addressed by items 3, 8, 9, 10, 12 and 13 within this package.

Additional proposed rule revisions in this package listed under the headings of Fish and Wildlife Habitat and Resource Information (1 - 5) and Appendix A (17) are in response to more recent OSM correspondence dealing with the approval of the revised shrub density standard. In its August 6, 1996 Federal Register notice (61 FR 40735), the OSM asked that several of Wyoming's rules associated with this revised standard be modified.

The remainder of the proposed rule revisions presented in this package are being initiated by the State to correct improper cross-referencing and other administrative or editorial errors.

Fish and Wildlife Habitat and Resource Information

1. Proposed Rule Amendment: Chapter 1, Section 2(v)

(v) "Critical habitat" means those areas essential to the survival and recovery of species listed by the Secretary of Interior ~~or Commerce~~ as threatened or endangered under the authority of ~~(50 CFR, Parts 17 and 226).~~

Statement of Reasons:

In 61 FR 40735, dated August 6, 1996, the OSM asked Wyoming to delete the reference to the Secretary of Commerce in the above definition. The OSM explained that the Secretary of Commerce is responsible for the designation of habitats essential to the survival of marine mammals, fish or reptiles. The jurisdiction of the Secretary of Commerce has no relevance to Wyoming because this state has no mammals, fish or reptiles that spend at least part of their lives in a marine environment. Consequently, the OSM reasoned that Wyoming's protection of critical habitat designated by the Secretary of Interior or Commerce could be interpreted to allow Wyoming to choose to protect the critical habitat designated by one of the departments, but not both. The OSM further reasoned that Wyoming could choose to protect critical habitat designated by the Department of Commerce (for which there is none in Wyoming) and not protect critical habitat designated by the Secretary of Interior.

For the reasons stated above and to avoid any confusion regarding appropriate habitat designees, the Secretary of Commerce and the associated Federal Law citation are proposed for deletion.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(b)(i).

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2. Proposed Rule Amendment: Chapter 2, Section 2(a)(vi)(G)(II)

(II) If critical habitat disruption is likely, the U.S. Fish and Wildlife Service and Wyoming Game and Fish Department shall be contacted by the Administrator. If crucial or important habitat or migration route disruption is likely, the Wyoming Game and

Fish Department shall be contacted by the Administrator. Contacting the appropriate agency(ies) is required in order to determine the types and numbers of wildlife likely to be disturbed or displaced.

Statement of Reasons:

In the August 6, 1996 Federal Register notice (61 FR 40741), the OSM asked Wyoming to clarify that the U.S. Fish and Wildlife Service will be contacted in the event that habitat declared to be "critical" is threatened by any mining related activity. This is consistent with the Federal regulations at 30 CFR §§ 780.16(a) and (a)(2)(i) which requires states to consult with the U.S. Fish and Wildlife Service on critical habitat for Federally-listed threatened and endangered species. Consequently, this rule is proposed for amendment to make it clear which agency has jurisdiction over the three different categories of habitat.

When this proposed rule amendment was presented to the Land Quality Advisory Board at their September 30, 1996 meeting there was discussion regarding the necessity of having to contact two agencies in the event of disruption of critical habitat. The answer to this question is provided in the August 6, 1996 Federal Register notice (61 FR 40735) where the OSM asked Wyoming to revise the above rule. The Federal Register at page 40741 presented the following explanation:

"Wyoming's existing performance standard rule at Chapter 4, Section 2(r)(i)(E) requires an operator to promptly report to the regulatory authority any species or critical habitat of such species listed as threatened or endangered, or any golden or bald eagle nest in or adjacent to the permit area, which was not reported or investigated in the permit application. Upon notification, the Administrator shall consult with the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service and, after consultation, shall identify whether and under what conditions the operator may proceed.

The Federal Regulations at 30 CFR 780.16(a) require the regulatory authority to consult with State and Federal agencies with responsibilities for fish and wildlife. 30 CFR 780.16(a)(2)(i) requires site specific resource information for listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the Secretary of the Interior under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The U.S. Fish and Wildlife Service is responsible for listing, recovery, administration, and prohibitions associated with threatened and endangered species designated under this Act. Therefore, 30 CFR 780.16(a) and (a)(2)(i) require the regulatory authority to consult with the Fish and Wildlife Service on critical habitat for Federally-listed threatened and endangered species."

In addition, 30 CFR § 816.97(b) requires the following:

(b) Endangered and threatened species. No surface mining activity shall be conducted which is likely to jeopardize the continued existence of endangered or threatened species

listed by the Secretary or which is likely to result in the destruction or adverse modification of designated critical habitats of such species in violation of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). The operator shall promptly report to the regulatory authority any State- or federally-listed endangered or threatened species within the permit area of which the operator becomes aware. Upon notification, *the regulatory authority shall consult with appropriate State and Federal fish and wildlife agencies* and, after consultation, shall identify whether, and under what conditions, the operator may proceed.

This combination of State and Federal regulations clearly outlines the steps for the regulatory authority to take if an operator is likely to encounter a threatened or endangered plant or animal species or its designated habitat. Consequently, by making it clear in the proposed rule amendment that the Administrator and not the operator shall contact both agencies in the event of potential disruption of critical habitat, this rule is as effective as the Federal rule and is consistent with State rule. The Advisory Board agreed with this explanation and approved the rule as proposed above.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(a)(i).

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3. *Proposed Rule Adoption*: Chapter 2, Section 2(b)(vi)(C)

(C) Upon request, the Administrator shall provide the resource information required under paragraph (B) of this Section and that required by Section 2(a)(vi)(G) of this Chapter to the U.S. Department of the Interior, Fish and Wildlife Service regional or field office for their review. This information shall be provided within 10 days of receipt of the request from the Service.

Statement of Reasons:

In a 30 CFR Section 732 letter dated November 7, 1988, the OSM asserted that in order to be no less effective than the Federal regulations at 30 CFR §§ 780.16(c) and 784.21(c), Wyoming must modify its program at Chapter II, Section 3(b)(iv) [**this rule has since been reorganized and recodified as Chapter 2, Section 2(b)(vi)**]. This requirement requested that Wyoming's rules clearly state that should the appropriate U.S. Fish and Wildlife Service (USFWS) office wish to review specific fish and wildlife resource information and the proposed protection and enhancement plan contained in a permit application that the Division will provide this information to the USFWS within ten days of receipt of such a request.

On June 15, 1990, Wyoming submitted an informal response to the OSM and proposed to create a new provision at Chapter 2, Section 2(b)(vi)(C) similar to the rule proposed above to be consistent with and no less effective than the Federal information requirements set forth at 30 CFR §§ 780.16(c) and 784.21(c). In an August 10, 1990, comment letter responding to Wyoming's

June 15, 1990, informal amendment submittal, the OSM did not identify Wyoming's proposed rule at Chapter 2, Section 2(b)(vi)(C) as being deficient. Accordingly, Wyoming now proposes to formally amend this rule.

To date, the USFWS has routinely sent a staff person to the LQD office in Cheyenne to review any documents of interest. The Division has then made copies of all material the staff person wants to take with them. The Division is willing to provide whatever material the USFWS feels is necessary. However, it is hoped that the more efficient "in person" preliminary review can be continued.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-1101(a) and (b).

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4. a. *Proposed Rules Amendment:* Chapter 2, Section 1(e)

(e) The applicant may consult with the local conservation district during preparation of the reclamation plan for conformance with technical standards and specifications adopted by the State Conservation Commission for mined land reclamation.

b. *Proposed Rules Amendment:* Chapter 2, Section 2(b)(iv)(C)

(C) A plan to assure revegetation of all affected land in accordance with Chapter 4, Section 2(d). The plan shall include the method and schedule of revegetation, including but not limited to species of plants, seeding rates, seeding techniques, mulching requirements or other erosion control techniques, and seeding times to be used in a given area for reclamation purposes. ~~The standards and specifications adopted by the State Conservation Commission for mine reclamation shall be considered by the applicant during the preparation of the reclamation plan whenever practicable.~~ The Wyoming Game and Fish Department shall be consulted and its approval shall be required for minimum stocking and planting arrangements of trees and shrubs, including species composition and vegetative ground cover for crucial habitat, declared as such prior to the submittal of a permit application or any subsequent amendment, and critical habitat. The Wyoming Game and Fish Department shall be consulted for recommended minimum stocking and planting arrangements of trees and shrubs, including species composition and vegetative ground cover for important habitat. The Wyoming Department of Agriculture shall be consulted regarding croplands and erosion control techniques.

Statement of Reasons:

Both of the proposed rule changes presented above regarding the repeal of any reference to the State Conservation Commission are the result of comments made by the OSM in the August 6, 1996 Federal Register notice (61 FR 40735). In this notice, the OSM explained that they had

received a comment from the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) on the rules proposed for approval. In their comment, the NRCS indicated that the State Conservation Commission is no longer in existence and that the State Board of Agriculture now has the Commission's responsibilities.

Subsequently, Wyoming contacted the State Department of Agriculture regarding the status of the State Conservation Commission and was told that the Commission had been disbanded and replaced by the State Board of Agriculture. However, this Board does not have any recommendations for the standards and specifications for mine reclamation. In addition, the Wyoming State Department of Agriculture no longer maintains such recommendations. Consequently, Wyoming proposes to eliminate any reference to the State Conservation Commission regarding specifications for mine reclamation.

The second change to the rule at Chapter 2, Section 2(b)(iv)(C) is in response to a required program amendment codified as § 950.16(ii)(1) in the 61 FR 40735 dated August 6, 1996. The OSM found that this rule, as approved, was not consistent with W.S. § 35-11-402(b)(ii) because the rule did not clarify that the Wyoming Game and Fish Department only has approval authority for revegetation standards on crucial habitat declared as such prior to the submittal of a permit application or any subsequent amendment. In order to be consistent with the statute, the rule is proposed for revision as presented above.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(b).

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5. *Proposed Rule Amendment:* Chapter 4, Section 2(d)(x)(E)(III)

(III) For areas containing ~~designated critical~~ or crucial habitat, designated as such prior to the submittal of a permit application or any subsequent amendment, or critical habitat the Wyoming Game and Fish Department shall be consulted about, and its approval shall be required for, minimum stocking and planting arrangements of shrubs, including species composition. For areas determined to be important habitat, the Wyoming Game and Fish Department shall be consulted for recommended minimum stocking and planting arrangements of shrubs, including species composition, that may exceed the programmatic standard discussed above.

Statement of Reasons:

In the August 6, 1996 Federal Register (61 FR 40735), the OSM imposed a required program amendment numbered 30 CFR § 950.16(ii)(1). The OSM found that this rule was not consistent with W.S. § 35-11-402(b)(ii) because the rule did not clarify that the WGFD only has approval authority for revegetation standards on crucial habitat declared as such prior to the submittal of

a permit application or any subsequent amendment. In order to be consistent with the statute, the rule is proposed for revision as offered above.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(b).

Shrub Density Standard

6.a. *Proposed Rule Amendment:* Chapter 1, Section 2(ac)

"Eligible land" means all land to be affected by a mining operation after the shrub standard set forth at Chapter 4, Section 2(d)(x)(E) is approved by the Office of Surface Mining August 6, 1996. Cropland, pastureland or treated grazingland approved by the Administrator which is to be affected by a mining operation after the shrub standard set forth at Chapter 4, Section 2(d)(x)(E) is approved by the Office of Surface Mining August 6, 1996 is not "eligible land".

b. *Proposed Rule Amendment:* Chapter 4, Section 2.(d)(x)(E)(I)

Except where a lesser density is justified from premining conditions in accordance with Appendix A, at least 20 percent of the eligible lands shall be restored to shrub patches supporting an average density of one shrub per square meter. Patches shall be no less than .05 acres each and shall be arranged in a mosaic that will optimize habitat interspersion and edge effect. Criteria and procedures for establishing the standard are specified in Appendix A. This standard shall apply upon approval by OSM to all lands affected thereafter August 6, 1996.

c. *Proposed Rule Amendment:* Appendix A, Section II.C.3.

All shrub density data collected after the effective date specified in Chapter 4, Section 2(d)(x)(E) August 6, 1996 shall be subject to sample adequacy tests specified in Section IV. of this Appendix. However, all shrub density data collected prior to the effective date August 6, 1996 shall not be subject to sample adequacy tests unless that shrub density data is being used to fulfill the 20% standard. In general, when sampling is conducted which is not subject to sample adequacy, the number of shrub density sample points should correspond to the number of cover samples in each community type.

d. *Proposed Rule Amendment:* Appendix A, Section VIII.E.

E. Evaluation of Shrub Density

Introduction

All land affected after the effective date of the shrub standard August 6, 1996, excluding cropland, pastureland or treated grazingland as defined in Chapter 1; Section 2 (bc) shall be considered eligible land subject to the standard. Except where a lesser density is justified by premining conditions, at least 20 percent of the eligible land shall be restored to shrub patches supporting an average density of one shrub per square meter (Chapter 4, Section 2(d)(x)(E)).

Statement of Reasons:

Each of the above rules are proposed for revision to remove the language referring to the approval of the shrub density rule by the OSM. Instead, this language will be replaced with the actual date that the rule was approved by the OSM. Adoption of this date will eliminate any future confusion for the public, coal operators or Division staff as to exactly when this rule went into effect.

The reference to the specific section and subsection within Chapter 1 (Definitions), in proposed rule amendment 6.d. is proposed for deletion to eliminate any future cross-referencing problems that would arise should a definition be added or deleted from Chapter 1. The addition or deletion of a definition would change the numbering of all definitions which follow. Consequently, removing this specific cross-reference now will eliminate the need for further rulemaking in the future.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(b)and (c).

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**Certification of Maps by a Registered Professional Engineer:
Incorrect Cross-references**

7. *Proposed Rule Amendment:* Chapter 2, Section 2.(a)(vi)(J)

(J) Maps and cross-sections of the area, certified by a registered professional engineer, licensed professional geologist, or other qualified professional (as required by W.S. §§ 33-29-111 139 and 9-3-1402 33-41-101 through 121), showing:

Statement of Reasons:

This rule is proposed for amendment to revise two incorrect references to the Wyoming Statutes. Subsection 33-29-111 was renumbered to 33-29-139 as part of the 1987 Legislative session. The title for statute 33-29-139 is as follows.

§ 33-29-139. Maps, plats, plans or designs for filing to be made and certified by a professional engineer or surveyor; execution; size of maps.

Subsection 9-3-1402 was renumbered to 9-2-802 as part of the 1982 Legislative session. Statute 9-2-802 was repealed by the 1997 Legislature. The Division received a comment from Gary Glass, the Wyoming State Geologist, indicating that W.S. § 9-2-802 had been repealed and replaced by the Wyoming Geologists Practice Act. This Act consists of subsections 33-41-101 through 33-41-121. At the March 2, 1998 meeting held by the Environmental Quality Council, the Council voted to include this reference to the Act in its entirety to provide the reader with the full content of this Act.

As part of his comment, Mr. Glass asked that we also insert the phrase "licensed professional geologist" into this rule to make it clear that these types of maps and cross-sections of the area to be affected within the permit can now also be certified by a registered professional geologist as required by this new Act. The authority for including this additional choice for certification is also provided in subsections 33-41-102(a)(viii) and 33-41-104(a)(iii) of the Wyoming Geologists Practice Act. The text of each of these subsections is as follows:

§ 33-41-102. Definitions.

(a) As used in this act:

(viii) "Practice of geology before the public" means the performance of geological services or work including consultation, investigation, evaluation, planning, preparation of geologic reports and maps, the inspection of geological work and the responsible supervision of geological services or work, the performance of which is relevant to public welfare or the safeguard of life, health, property and the environment, unless exempt under this act. "Practice of geology before the public" does not include cutting descriptions for water wells, descriptive logs for drill holes for mineral exploration, lithologic descriptions and stratigraphic picks for oil and gas well logs, geologic information contained within notices and other routine forms required by state and federal agencies, geologic reports and other documents not available for dissemination outside of the entity preparing the reports or documents, nor any technical papers or reports prepared *specifically for publication by the state or federal geological survey or by other geological, scientific or trade organizations*;

§ 33-41-104. Prohibited acts and conduct.

(a) Unless duly licensed in accordance with the provisions of this act, no person in this state shall:

(i) Employ, use, cause to be used as a professional, business or commercial identification title, name, representation, claim or means of advantage or benefit, the title "professional geologist" or any variation or abbreviation thereof;

(ii) Employ, use, cause to be used to make use of any letter, card, abbreviation, word, symbol, slogan, sign or any combination or variation thereof, which in any manner tends or is likely to create any impression with the public or any member thereof, that any individual is a professional geologist or that any individual is qualified or authorized to practice geology before the public unless the individual is duly licensed under this act and is practicing in accordance with the provisions of this act; or

(iii) **Practice, continue to practice, offer or attempt to practice geology or any subdiscipline or part thereof before the public as defined by this act.**

(b) For purposes of this act, any person who performs or offers or attempts to perform any of the acts specified under subsection (a) of this section is presumed to be engaged in the practice of geology before the public.

The symbol for subsections (§§) is also proposed for insertion to maintain a consistent technical writing style.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(a)(xiii).

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Geologic Descriptions

8. *Proposed Rule Amendment*: Chapter 2, Section 2(a)(vi)(H)

(H) A detailed description, prepared or certified by a licensed professional geologist, or other qualified professional (as required by W.S. §§ 33-41-101 through 121), of the geology within the proposed permit area down to and including any aquifer to be adversely affected by mining below the lowest coal seam to be mined. The description shall include the areal and structural geology of the permit area and, by extrapolation, adjacent areas, including geologic parameters which influence the required reclamation, and the occurrence, availability, movement, quantity, and quality of potentially affected surface and groundwaters.

Statement of Reasons :

Early in the existence of the approved Wyoming State Program, the OSM forwarded a 30 CFR Part 732 letter dated December 23, 1985 to Wyoming which required revisions to various portions of its program. The changes needed to the Wyoming Program were in response to Judge Flannery's, Round II decisions. In these letters, the OSM asked the state to make three specific changes; (1) require that an application for a permit to conduct surface coal mining operations contain a detailed description of the geology within the proposed permit area as well as those areas adjacent to the permit area; (2) require that an application for a surface coal mining operation specify that where no aquifer below the coal seam will or may be affected, the detailed geologic

description will include, at least, the stratum underlying the deepest coal seam to be mined and; (3) that the application shall address the geologic parameters which influence reclamation and the occurrence, availability, movement, quantity, and quality of the potentially affected surface and ground waters.

On March 31, 1989, Wyoming submitted a formal amendment in response to this letter and proposed to revise its rules at Chapter II, Section 3(a)(vi)(A). **This rule has since been reorganized and recodified as Chapter 2, Section 2(a)(vi)(H).** However, in this submittal, Wyoming only addressed the second of the issues raised by the OSM in the December 23, 1985 issue letter. This change was made to the rule currently codified at Chapter 2, Section 2(a)(vi)(I).

Wyoming inadvertently failed to propose the addition of language to its rules which would require that a description include areal and structural geology of the permit and adjacent areas and other geological parameters which influence reclamation and the occurrence, availability, movement, quantity and quality of the potentially affected surface and groundwaters.

In a final rule Federal Register notice dated July 25, 1990 (55 FR 30221, 30223), the OSM determined that, to the extent submitted, Wyoming's proposed rule was no less effective than the Federal regulations and approved the proposed rule. However, in order to achieve consistency with Federal regulations 30 CFR §§ 780.22(b)(1) and 784.22(b)(1), the OSM required Wyoming to further amend its rule to add the language proposed above. This requirement was codified by the OSM at 30 CFR § 950.16(b).

In addition, Wyoming is proposing to add the words "by extrapolation" before the words "adjacent areas." This change which is not found in the Federal rule, is being proposed to make it clear that a mining operator may use drilling information from within the permit area to extrapolate out to adjacent areas in order to describe the geology of the adjacent areas in the event that legal access to these areas for drilling purposes is not available. This provision does not relieve companies from using existing information to characterize adjacent areas or conduct field investigations of surface water characteristics outside the permit area if needed. This provision only alleviates the need to drill outside the permit area in situations where permission for access cannot be obtained. Wyoming currently uses the term "by extrapolation" in its rule at Chapter 2, Section 2(a)(vi)(I) and this reasoning is the same as that given by the OSM to approve the use of this term.

The phrase "prepared or certified by a licensed professional geologist" has also been added to this rule. This was recommended by Gary Glass, the Wyoming State Geologist, because of the recently adopted Wyoming Geologists Practice Act. He pointed out that the geologic reports in these plans must be prepared or certified by a licensed professional geologist pursuant to the Wyoming Geologist Practice Act. The appropriate subsections within the new Act are presented above. Subsection 33-41-102 provides a definition for the "practice of geology before the public". This definition includes "preparation of geologic reports and maps, the inspection of geological

work and the responsible supervision of geological services or work, the performance of which is relevant to public welfare or the safeguard of life, health, property and the environment. The type of detailed geologic map being required by this rule is exactly the type of work being referred to by this statute. Consequently this requirement is being added to this rule.

At the March 2, 1998 meeting of the Environmental Quality Council, the Council added several provisions to this proposed rule. The first is the addition of the phrase "or other qualified professional (as required by W.S. §§ 35-11-101 through 121)." This phrase has been added to make it clear that not all maps submitted to the Land Quality Division regarding geologic descriptions necessarily require the certification of a licensed professional geologist. It was pointed out at the meeting that a map that merely describes the geology of the proposed permit area down to and including any aquifer to be affected below the lowest coal seam would not necessarily constitute the "practice of geology before the public" as presented in W. S. § 33-41-102(a)(viii). Consequently, the need for certification by a licensed professional geologist should not be automatically applied to any geologic map unless that map is actually including "geologic parameters which influence the required reclamation." The rule as now proposed makes it clear that the mine staff and Land Quality Division staff will need to be aware of the purpose of the map in order to determine whether licensed professional geologist certification is warranted.

The Environmental Quality Council also added several additional words to this proposed rule. The term "adversely" has been added to modify "affected" and "by mining" has been added after "affected." Both changes are intended to make it clear that the detailed geologic description only needs to include the aquifer below the lowest coal seam to be mined if that aquifer is clearly going to be adversely affected by mining. Although this is the intent of the Land Quality Division, this rule now clearly presents this interpretation.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-406(a)(vii).

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9. *Proposed Rule Amendment:* Chapter 2, Section 2(a)(vi)(J)(II)

(II) All coal crop lines and the strike and dip of the coal to be mined within the proposed permit area;

Statement of Reasons:

As part of the July 25, 1990 Federal Register (55 FR 30221), the OSM codified at 30 CFR § 950.16(c) a requirement that Wyoming amend its rules at Chapter II, Section 3(a)(vi)(C)(II). **This rule has since been reorganized and recodified as Chapter 2, Section 2(a)(vi)(J)(II).** This required amendment asks that Wyoming clarify that an operator must provide maps and cross-sections which show the strike and dip of the coal seam to be mined within the proposed permit area. The OSM required Wyoming to amend its rule in order to be consistent with Federal regulations 30 CFR §§ 779.25(a)(4) and 783.25(a)(4). In response to this required amendment, Wyoming proposes to further amend its rule as set forth above.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-406(a)(vii).

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Topsoil Substitutes

10. *Proposed Rule Amendment*: Chapter 4, Section 2(c)(ix)

(ix) If a sufficient volume of suitable topsoil or subsoil is not available for salvage or redistribution, then selected spoil material ~~overburden~~ may be used as a topsoil ~~or subsoil~~ substitute or supplement. The operator shall demonstrate ~~by analyses or test plots~~ that the resulting soil plant growth ~~medium or alternative material~~ is equal to, or more suitable for sustaining vegetation than the existing topsoil or subsoil and that it is the best available in the permit area to support revegetation of an equivalent or better suitability than the existing topsoil and will be the best available at the time of use. A demonstration of the suitability of the substitutes or supplements shall be based upon analysis of the texture, percent coarse fragments and pH. The Administrator may require other chemical and physical analyses, field site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil or subsoil substitutes or supplements.

Statement of Reasons:

In a final rule Federal Register notice dated November 24, 1986 (51 FR 42209, 42211-12), the OSM found Wyoming's provision at Chapter 4, Section 2(c)(iii)(A) to be less effective than the Federal regulations at 30 CFR §§ 816.22(b) and 817.22(b). **This rule has since been reorganized and recodified as Chapter 4, Section 2(c)(ix).** As a result, the OSM imposed upon the Wyoming program a required amendment originally codified at 30 CFR § 950.16(j).

On March 31, 1989, Wyoming submitted a formal amendment in response to the required program amendment and proposed to revise its rules at Chapter 4, Section 2(c)(ix) to be no less effective than the Federal regulations. In a final rule Federal Register notice dated July 25, 1990 (55 FR 30221, 30224), the OSM approved Wyoming's proposed revisions regarding the use of topsoil substitutes and removed the program amendment requirement codified at 30 CFR § 950.16(j). This rule was proposed as follows:

If sufficient volume.....supplement. The operator must demonstrate by analysis of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils that the resulting soil medium is of equivalent or better suitability than the existing topsoil or will be the best available at the time of use.

However, instead of promulgating this rule as approved by the OSM in the July 25, 1990, Federal Register notice, Wyoming proposed new rule language governing topsoil substitutes that was substantially the same as that previously proposed by Wyoming in 1986 and found by the OSM to be less effective than the Federal regulations.

On October 15, 1991, Wyoming responded to an OSM comment letter dated September 13, 1991, regarding the topsoil substitute issue. Wyoming asserted that the rule approved by the OSM on July 25, 1990, was not adopted by the State because it "made no sense to the technical staff." Wyoming further noted that the Federal rule for topsoil substitutes (30 CFR § 780.18(b)(4)) requires the analysis of many of the same parameters used for soils (i.e., thickness of soil horizons, total depth). However, topsoil substitutes are, by definition, not topsoil, and therefore do not have the same characteristics as a developed soil.

In a Federal Register notice dated October 29, 1992 (57 FR 48984, 48987-88), the OSM disapproved Wyoming's proposed rule at Chapter 4, Section 2(c)(ix) because it removed from the rule the analytic parameter provisions which define the best available materials. In addition, the OSM imposed upon the Wyoming program a required amendment codified at 30 CFR § 950.16(v).

In response to this required amendment, Wyoming proposes to further amend its rule at Chapter 4, Section 2(c)(ix), by adding the revised language set forth above. This language includes those parameters from the Federal rule (30 CFR § 780.18(b)(4)) which are applicable to a spoil material (texture, pH, percent coarse fragments). This rule does not include those parameters (thickness of soil horizons, total depth and areal extent of the different kinds of soils) included in Federal rule § 780.18(b)(4).

This revised rule also proposes to remove the phrase "of an equivalent or better suitability than the existing topsoil and will be the best available at the time of use" and replace it with "equal to, or more suitable for sustaining vegetation than the existing topsoil or subsoil and that it is the best available in the permit area to support revegetation" This new phrase, which is directly from the Federal rule at 30 CFR § 816.22(b), better clarifies the intent of the State rule. The intent of this rule is for the operator to obtain material that will support vegetation in the event that there is insufficient topsoil or subsoil to accomplish this. This does not mean that the level of every chemical parameter analyzed for the native topsoil or subsoil material must be duplicated within the proposed substitute or supplemental material. Instead, the substitute or supplement must be shown to be equal to or more suitable for *sustaining vegetation* than the existing topsoil.

This rule is also proposed for amendment by the adoption of language directly out of the Federal rule at 30 CFR § 780.18(b)(4) which refers to topsoil substitutes or supplements. This rule is worded as follows:

- (4) A plan for removal, storage, and redistribution of topsoil, subsoil, and other material to meet the requirements of Section 816.22 of this Chapter.

A demonstration of the suitability of topsoil substitutes or supplements under Section 816.22(b) of this Chapter shall be based upon analysis of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils. The regulatory authority may require other chemical and physical analyses, field-site trials, or greenhouse tests if determined to be necessary or desirable to demonstrate the suitability of the topsoil substitutes or supplements.

The last sentence proposed for the State's rule is directly from the above rule with the exception of the State's proposal not to ask for the "soil horizons, total depth or areal extent of the different kinds of soils" related to the substitute, since the substitute material would not exhibit any of these qualities normally associated with topsoil and subsoil. This proposed rule also contains one phrase not used in the counterpart Federal rules and that is "plant growth" to modify medium in the fourth line of the rule. This makes more sense technically than referring to the substitute as soil, since it is spoil, not soil.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(a)(v).

Special Bituminous Coal Mines

11. *Proposed Rule Amendment:* Chapter 8

Section 3. **Special Alternative Standards for Existing Special Bituminous Surface Coal Mines.**

(c) ~~For new special bituminous surface coal mines and pits not covered under (a) above, requirements for backfilling and grading of the mine pit area and spoil piles as contained in Chapter 4, Section 2(b) shall be applicable.~~

Section 4. **Special Alternative Standards for New Special Bituminous Surface Coal Mines.** New special bituminous surface coal mines and pits not covered under Section 3(a) above shall comply with the following requirements for backfilling and grading of the mine pit area and spoil piles:

(a) Backfilling, grading, and contouring of affected land shall be accomplished by one or more of the following as detailed in the approved reclamation plan:

(i) Reestablishment of the contour of the land in a manner consistent with the proposed future use of the land.

(ii) Reestablishment of adequate through drainage if such a provision is necessary to prevent pollution or diminution of the quantity and quality of the surface water and groundwater.

(iii) Contouring of affected land to blend in with the topography of the surrounding terrain unless so doing would create an erosion problem or a hazard to man or beast.

(iv) Creation of water impoundments for a use certified in an approved plan in accordance with the statutes and Chapter 4, Sec. 2(g)(ii).

(v) If the reclamation plan does not provide for a permanent water impoundment, the final pit area shall be backfilled, graded, compacted and contoured to the extent necessary to return the land to the use specified in the approved plan. In preparation of slope specifications in the plan, the operator shall consider an average of the measured slopes in the immediate area of the proposed mine site. Slopes in the reclaimed area shall approximate the premining slopes. Slopes greater than the approximate premining slopes may be approved if the operator can demonstrate to the satisfaction of the Administrator that returning the mined area to a slope equal to or less than the approximate premining slopes would create an unwarranted increase in the amount of affected lands. Individual slope measurements, locations of the measurements, and the average measurement shall be submitted with the reclamation plan. In determinations of the approximate premining slope, the Land Quality Division may make an independent slope survey. All backfilling, grading, and contouring will be done in such a manner so as to preserve the original drainage or provide for approved adequate substitutes. No depressions to accumulate water will be permitted unless approved in the reclamation plan as being consistent with the proposed future use of the land.

(vi) Terraces or benches may be used only when it can be shown to the Administrator's satisfaction that other methods of contouring will not provide the required result. If terracing is proposed, detailed plans indicating the dimensions and design of the terraces, check dams, any erosion prevention techniques, and slopes of the terraces and their intervals will be required.

(vii) If the reclamation plan provides for a permanent water impoundment and this use has been approved according to the requirements outlined in the Act and these regulations, the exposed pit areas must be sloped, graded, and contoured so as to blend in with the topography of the

surrounding terrain and provide for access and revegetation. Riprapping where necessary to prevent erosion will be required. Sloping requirements will be as described above. Under certain conditions wherein it can be demonstrated to the Administrator's satisfaction that the pitwall can be stabilized by terracing or other techniques it may be permissible to leave not more than one-half of a proposed shoreline composed of the stabilized pitwall. The remaining portion of the shoreline must be graded and contoured so as to provide access and blend in with the topography of the surrounding terrain. In the event that a partial pitwall is proposed as final reclamation, the operator must submit a detailed explanation of the techniques to be used to establish the stability of the pitwalls in his reclamation plan. At the Administrator's discretion, a study of the proposed pitwall stabilization techniques may be required from an independent engineering company for purposes of verifying the effectiveness of the proposed stabilization techniques. The Land Quality Division will determine the acceptability of the proposed stabilization techniques based on this information and an on-site inspection.

(viii) Highwall retention may be considered on a case-by-case basis for enhanced wildlife habitat. The Wyoming Game and Fish Department shall be consulted by the applicant for need and design of the land form. Any approval under this paragraph shall be based on a demonstration of safety, stability, environmental protection, and equal or better land use considerations.

Section 45. **General Performance Standards.** All other performance standards contained in the Act and Chapter 4 shall apply to special bituminous coal mines to the extent that such performance standards do not preclude the benefit intended under the special alternative regulations contained in Sections 3 and 4 of this Chapter.

Statement of Reasons:

The standards for backfilling and grading the mine pit area and spoil piles associated with a new special bituminous coal mine are currently provided in Chapter 8 through cross-referencing to Section 2(b) in Chapter 4. However, during the December, 1992 reorganization of the LQD rules into specific Coal and Noncoal sets, the above proposed rule additions at Section 4(a)(i) through (iv) were inadvertently excluded from applying to new special bituminous coal mines. This Section of Chapter 4 was replaced by provisions found in the then existing Section 3(a) of Chapter 4.

Historically, when the Coal and Noncoal rules were part of one document, Section 3 of Chapter 4 pertained only to coal mines and provisions within this Section were more stringent than those found in Section 2. Consequently, at the time of reorganization, subsection (a) of Section 3 was

adopted verbatim in the rules designed exclusively for coal. However, this adoption was conducted without taking into consideration the alternative standards for reclamation which were agreed upon for special bituminous coal mines during the adoption of SMCRA by Congress. Chapter 8 had originally referenced these alternative standards (the same standards required of noncoal mines).

In order to rectify this omission, the above rules are proposed for amendment into Chapter 8. These rules are the same as currently found in Chapter III, Section 2(b) of the LQD Noncoal rules, with one exception. The phrase "or that greater slopes would enhance the postmining land use" has not been incorporated into the amended language for Chapter 8. This phrase which does exist in the Noncoal rules at Section 2(b)(ii) was originally incorporated into the LQD rules on December 5, 1988. The inclusion of this phrase was then submitted to the OSM for approval on December 13, 1988. The OSM subsequently disapproved the addition of this phrase on December 26, 1989 in Federal Register notice, 54 FR 52958. This phrase was not part of the rules originally intended to apply to new special bituminous mines, and has been disapproved by the OSM and therefore cannot be applied to new special bituminous mines.

This rule also adds a reference to Section 4 within the renumbered Section 5, **General Performance Standards**. Section 4, **Special Alternative Standards for New Special Bituminous Coal Mines** must be included in Section 5 to make it clear that a new special bituminous mine shall also comply with the performance standards contained in the Act and Chapter 4 to the extent that such performance standards do not preclude the benefit intended under the special alternative regulations contained in either Section 3 or 4 of Chapter 8.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(a)(xii).

* * * * *

Archaeological and Historic Resources

12. *Proposed Rule Amendment:* Chapter 12, Section 1(a)(iv)(B)

(iv) In addition to the specific findings required by W.S. § 35-11-406(n) no permit shall be approved unless the Administrator also *finds in writing that:*

(B) The effect of the proposed operation on properties listed on and properties eligible for listing on the National Register of Historic Places has been taken into account; and

Statement of Reasons:

In a final rule Federal Register notice dated October 29, 1992 (57 FR 48984, 48988), the OSM found Wyoming's proposed rule at Chapter XIII, Section 1(a)(v) to be less effective than the

Federal regulations to the extent that it did not include a finding for properties listed on the National Register of Historic Places. **This rule has since been recodified as Chapter 12, Section 1(a)(iv)(B).** Consequently, the OSM imposed the required program amendment codified as 30 CFR § 950.16(x). This amendment required Wyoming to revise its rules at Chapter 12, Section 1(a)(iv)(B) to be no less effective than the Federal regulations at 30 CFR § 773.15(c)(11) by including findings for properties listed on the National Register of Historic Places. In response to this required amendment, Wyoming proposes to revise its rule by adding the additional language set forth above.

In addition to the requirement provided by the OSM, the Division received a comment from the Wyoming State Historic Preservation Office (WSHPO). They asked that this rule be clarified to ensure that properties listed on the National Register of Historic Places, as well as, those properties eligible for listing on this Register would be taken into consideration when determining whether to issue a coal mine permit. The WSHPO had asked that the word "or" be substituted for the word "and" in this rule. Rather than make this substitution which is not the same word used in the counterpart Federal rule, the State is adding the word "properties" to modify eligible and to make it clear that these properties must also be taken into consideration.

The symbol for subsection (§) is also proposed for insertion into the rule at Chapter 12, Section 1(a)(iv)(B) to maintain a consistent technical writing style.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-406(a)(xv).

* * * * *

13. Proposed Rule Amendment: Chapter 12, Section 1(a)(v)(C)

(C) On any lands where which mining will adversely affect any publicly owned park or any places included in properties listed on and any properties eligible for listing on the National Register of Historic Places, unless jointly approved by the Administrator and the Federal, State or local agency with jurisdiction over the park or place;

Statement of Reasons:

In the July 25, 1990 Federal Register (55 FR 30221, 30227-28), the OSM codified at 30 CFR § 950.16(g) an amendment requiring Wyoming to revise its rules at Chapter XIII, Section 1(a)(v)(C) to reinstate the word "any" in front of the phrase "places included in the National Register of Historic Places." **This rule has been reorganized and recodified as Chapter 12, Section 1(a)(v)(C).** In the final rule Federal Register notice, the OSM disapproved Wyoming's proposed revision to the extent that the word "any" was deleted and stated that the deletion did not assure that privately, as well as publicly-owned places listed on the National Register of Historic Places would be protected by disturbance from mining.

In addition, the word "where" is proposed to replace "which" to make the rule more understandable, along with the addition of the word "mining." These proposed changes also make the introductory portion of this rule identical to the introductory portion of the counterpart Federal rule at 30 CFR § 761.11(c).

In addition to the requirement provided by the OSM, the Division received a comment from the Wyoming State Historic Preservation Office (WSHPO). They asked that this rule be clarified to ensure that properties listed on the National Register of Historic Places (NRHP), as well as, those properties eligible for listing on this Register would be taken into consideration when determining whether surface coal mining would be prohibited or limited if mining were to adversely affect any of these properties. They said that this was necessary "to comply with the letter and intent of the National Historic Preservation Act." In order to be consistent with the rule change presented in item 12. above, the rule is proposed for amendment as requested by the WSHPO. By doing so, it will be clear that prior to the Administrator granting a permit for coal mining, the potential adverse effects from mining on any sites that are currently listed on the NRHP as well as those that are eligible for listing must be considered.

However, with the adoption of the language recommended by the WSHPO, the state's rule could be interpreted as exceeding the requirements of the counterpart Federal rule at 30 CFR § 761.11(c). The Federal rule states that "Subject to valid existing rights, no surface coal mining operations shall be conducted after August, 3, 1977, unless those operations existed on the date of enactment: (c) On any lands where mining will adversely affect any publicly owned park or any places included in the National Register of Historic Places, unless jointly approved by the regulatory authority and the Federal, State, or local agency with jurisdiction over the park or place." This Federal rule is not requiring that a property "eligible" for the NRHP be precluded from mining unless mining is jointly approved by the regulatory authority and the Federal, State, or local agency with jurisdiction over the property.

Chapter 12, Section (a) of the LQD rules takes a two-tiered approach to properties listed on and those properties eligible for listing on the NRHP. Subsection (iv) states the Administrator shall not approve a permit unless the effect of the proposed operation on these properties has been taken into account. Whereas, subsection (v) states that surface coal mining operations are prohibited or limited on any land which will adversely affect any publicly owned park or any place included in the NRHP, unless jointly approved by the Administrator and the Federal, State or local agency with jurisdiction over the park or place.

By adopting the change recommended by the WSHPO, the state will also be looking at the possible prohibition of mining on a property eligible for listing. Whether or not this site would actually be declared off limits to mining would depend on the same joint approval by the Administrator and the appropriate Federal, State or local agency as is currently required for a site that is actually listed in the NRHP. This decision process is, in reality, no different then what is being required in subsection (iv) which states that the effects resulting from mining on any properties eligible for or actually listed on the NRHP must be taken into account. Therefore,

properties in either the eligible or listed category would require (at a minimum) scrutiny by the LQD Administrator or, if appropriate, the joint participation of other Federal, State or local agencies before any decision can be made as to whether the property in question can or cannot be mined.

In order to maintain a consistent approach to management and regulation of properties eligible for listing on the NRHP and to be in accordance with the National Historic Preservation Act itself, the Division proposes to adopt the change recommended by the WSHPO.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-406(a)(xv).

Permit Transfers - Public Notice

14. *Proposed Rule Amendment:* Chapter 12, Section 1(b)(ii)

(b) All procedural requirements of the Act and the regulations relating to review, public participation, and approval or disapproval of permit applications, and permit term and conditions shall, unless otherwise provided, apply to permit revisions, amendments, renewals and transfers. In addition, the following requirements are applicable.

(ii) All requirements imposed by W.S. § 35-11-408 and this provision for permit transfers. These requirements shall be met, as evidenced by the written approval of the statement of qualifications by the Administrator and Director, prior to any permit transfer. Permit transfers shall not be subject to the requirements of W.S. § 35-11-406(g).

Statement of Reasons:

As currently written, this rule requires an operator to comply with all "All procedural requirements of the Act and the regulations relating to review, public participation, and approval or disapproval of permit applications, and permit term and conditions" when applying for a permit transfer. The Division has found that the public participation requirement prescribed in W.S. § 35-11-406(g) is not applicable to a permit transfer application. This statute requires an operator to publish a notice that the application has been determined to be "complete" and that this notice be published once a week for two consecutive weeks in a newspaper of general circulation in the locality of the proposed mining site.

A permit transfer application typically consists of changes to various administrative forms and updates to the "identification of interest" sections within the permit document. This is much less information than is submitted with a new permit or amendment application. Consequently, when reviewing a permit transfer application, the Division does not conduct a separate completeness

review as is routinely done to a new permit or amended permit application. Instead, only one thorough review is performed on a permit transfer application. There is no need to ask an operator to publish the two week notice of completeness when such a determination is not made on these applications.

All other publication provisions required in the Act do apply to permit transfer applications. This includes a single publication requirement of once a week for four consecutive weeks as specified in W.S. § 35-11-406(j) notifying the public that the transfer application has been received and reviewed by the Division. In addition, the OSM does not have a two tiered publication requirement for permit transfers and requires only a single publication period (30 CFR § 774.17). Therefore, the Division proposes to eliminate the two week publication requirement for permit transfer applications.

The authority to amend this rule is provided by W.S. § 35-11-112(a)(i).

* * * * *

Civil Penalties: Incorrect Cross-reference

15. *Proposed Rule Amendment:* Chapter 16, Section 3(c) and (f)

(c) The procedure for any requested assessment conference, as provided for in W.S. § 35-11-901(c d) shall be the equivalent of the informal conference procedure described by the Act and regulations applicable to permit applications excepting that the Director, not the Administrator, shall conduct the conference.

(f) The civil penalty prescribed by W.S. § 35-11-901(n) shall be assessed for a maximum of 30 days, except that, if the person to whom the notice or order was issued initiated review proceedings with respect to the violation, the abatement period shall be extended as follows:

Statement of Reasons:

The reference to the Wyoming Environmental Quality Act in both of the above rules is proposed for revision because they no longer reference the appropriate statute. Article 9 of the Act was modified by the 1995 Legislature. Many of the provisions within W.S. § 35-11-901 were repealed from that subsection and moved into a new subsection numbered 35-11-902, entitled "Surface coal mining operations; violations of provisions; penalties." The above proposed changes now correctly reference Article 9.

The statutes referenced by the above rules are as follows:

§ 35-11-902(d) Upon issuance of a notice of abatement or cessation order, the director shall inform the operator of the proposed amount of the penalty within thirty (30) days. The amount shall be determined in accordance with rules and regulations promulgated by the council. The person charged with the penalty shall have fifteen (15) days to request a

conference with the director for informal disposition of any dispute over either the amount of the penalty or the occurrence of the violation.

§ 35-11-902(n) Any operator of a surface coal mining operation who fails to correct a violation within the period permitted for its correction, or after a final order or decision issues requiring correction when either the department or a court has relieved the operator from the abatement requirements of the notice or order, shall be assessed a civil penalty of not less than seven hundred and fifty dollars (\$750.00) for each day during which the failure or violation continues.

The symbol for subsection (§) is also proposed for insertion into both rules to maintain a consistent technical writing style.

The authority to amend this rule is provided by W.S. § 35-11-112(a)(i).

Appendix A - Vegetation Sampling Methods and Reclamation Success Standards

16. *Proposed Rule Amendment:* Appendix A, Section II.C.2.c. (page A-12)

c. Data on Cropland, Hayland or Pastureland

In general, CONAs or REFAs need not be established for these land units. The premining production data, similar undisturbed management units or average area agricultural statistics information may serve as reclamation success standards per Chapter 4, Section 2(d)(x)(E)(I). However, given site specific conditions it may be appropriate to establish CONAs or REFAs for haylands and pasturelands. The need to establish CONAs or REFAs should be discussed with the LQD during the initial planning stages of the vegetation inventory.

Statement of Reasons:

The acronyms used in the above rule are defined in Appendix A as follows; CONA is a control area and REFA is a reference area.

This section within Appendix A is proposed for amendment to correct an improper cross-reference which occurred during the formal rulemaking codifying the shrub density standard. This rule currently incorrectly references the rule in Chapter 4 which deals with the shrub density standard on eligible coal mined lands. This citation should instead reference subsection (I) within Section 2(d)(x) of Chapter 4 which discusses the reclamation requirements for cropland.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(a)(iv).

17. *Proposed Rule Amendment: Appendix A, Appendix IV - Plant Species of Special Concern*
(page A - 47)

Appendix IV - Plant Species of Special Concern

The State of Wyoming has never prepared an official list of Rare, Threatened or Endangered Plant Species. No Only one plants species known to occur in Wyoming is currently have been formally listed as Threatened (T) or Endangered (E) under the federal Endangered Species Act. Three other species are candidates (C) for potential listing. These plants are noted by their assigned ranking in parentheses. However there are many additional several species occurring within Wyoming have been or are being which may be considered under for formal listing procedures in the future. State and federal agencies have historically afforded these species special consideration until their status is accurately assessed.

This list was compiled from Dorn (1980) as well as Clark and Dorn (1981), and U.S. Fish and Wildlife Service, (1985). Clark and Dorn (1981) contains a list of Wyoming plants by county. Presented below are those species currently (as of January, 1998) listed as Threatened (T), Endangered (E), or Candidates (C). In addition to this list, the Administrator will compile a list of those species that deserve special consideration. This list will be made available to the public and will be updated as determined by the Administrator.

| | |
|--|--|
| <u>Agrostis rossiae</u> | <u>Gaura neomexicana aromatica</u> |
| <u>Antennaria arcuata</u> | <u>ssp. coloradensis (C)</u> |
| <u>Antennaria aromatica</u> | <u>Lesquerella macrocarpa</u> |
| <u>Arabis pusilla (C)</u> | <u>Lomatium attenuatum</u> |
| <u>Arabis williamsii</u> | <u>Oryzopsis swallenii</u> |
| <u>Arnica paniculata</u> | <u>Penstemon absorkensis</u> |
| <u>Aster mollis</u> | <u>Penstemon acaulis</u> |
| <u>Astragalus jejunus</u> | <u>Penstemon gibbensii</u> |
| <u>Astragalus paysonii</u> | <u>Physaria condensata</u> |
| <u>Astragalus proimanthus</u> | <u>Physaria dornii</u> |
| <u>Astragalus shultziorum</u> | <u>Rorippa calycina</u> |
| <u>Claytonia lanceolata var. flava</u> | <u>Shoshonea pulvinata</u> |
| <u>Cleome multicaulis</u> | <u>Spiranthes diluvialis (T)</u> |
| <u>Cryptantha subcapitata</u> | <u>Sphaeromeria simplex</u> |
| <u>Descurainia torulosa</u> | <u>Stanleya pinnata var. gibberosa</u> |
| <u>Draba nivalis var. brevicula</u> | <u>Thelesperma pubescens</u> |
| <u>Draba pectinipila</u> | <u>Trifolium barnebyi</u> |
| <u>Eriogonum lagopus</u> | <u>Yermo xanthocephalus (C)</u> |
| <u>Eriogonum visheri</u> | |

Statement of Reasons:

The list of plant species of special concern in the current version of Appendix IV is now out-of-date. This was brought to the States's attention by the OSM in their March 8, 1996 comment letter. This list will continually be out-of-date simply because new plants and new populations of existing plants will be discovered in the future. Rather than attempt to keep this list up-to-date,

the State is proposing to provide in this appendix only those species listed as threatened, endangered or candidates by the U.S. Fish and Wildlife Service. This listing is necessary because operators are required by Chapter 2, Section 2(a)(vi)(C)(III) to describe the location of any State or Federally listed endangered or threatened plant species occurring within or adjacent to the permit area. Consequently, it is important that the plant species currently listed by the U.S. Fish and Wildlife Service be available to coal operators.

The Division will consult with the U.S. Fish and Wildlife Service on an annual basis to determine whether the list included in this Appendix needs to be updated. If there are new threatened or endangered species listed by the U.S. Fish and Wildlife Service that need to be added to this list, this will be accomplished through formal rulemaking. Formal rulemaking will also be initiated if a plant species needs to be removed from this Appendix because it has been delisted by the U.S. Fish and Wildlife Service.

The other plants currently appearing on this list and now shown in overstrike are proposed for removal because these species represent those plants considered to be of special concern in Wyoming, but are not formally classified as threatened or endangered by the State. Rather than attempt to keep this list up-to-date through rulemaking, the State is proposing to consult with all state entities that have current data on plant species that are of special concern in Wyoming. This information will be compiled and updated annually if necessary by the Division and be made available to the public upon completion. When possible, this compiled summary will be updated and made available to the public prior to the summer field sampling season for the current year.

The authority to amend this rule is provided by W.S. §§ 35-11-112(a)(i) and 35-11-406(a)(vii).

* * * * *

18. Proposed Rule Amendment: Options I - IV; All associated figures

Please refer to the attached pages to view the revised Option Tables.

Statement of Reasons:

The Land Quality Division held a workshop for industry representatives and consultants on September 30 and October 1, 1996 to discuss and describe the newly adopted shrub density standard for coal operators. As part of this discussion, several errors, inconsistencies and improvements to the following figures were identified. These figures have been revised accordingly to correct the errors and improve the readability of the information. The changes made to these figures are denoted on each page by large numbers corresponding to the place where the change has been made. Each of the changes are discussed individually below.

Changes 1, 4, 10 and 14: The symbol " \geq " was added to each of these sections indicating which species are considered primary shrubs in each Option. The tables originally indicated that a species had to comprise greater than 10% of the overall shrub community composition in order to be considered a primary shrub. However, this is incorrect. It is acceptable for a species to equal 10% of the shrub composition and still be considered to be a primary species.

Changes 2, 5, 7 and 12: The tables have been revised by using text shading as a means of distinguishing the dominant species within each vegetation type. The tables originally denoted these values by bolding. However, the bolding was not easily distinguishable on copies made from the original.

Changes 3, 6, 9 and 13: An additional row was added to each table to show that the summation of all numbers in the columns above this row equal 1.00. This description was added to make it clearer to the reader that the summation of the relative species density in each vegetation type totaled 1.00.

Change 8: The value ".51" located to the left of Change 8 on Table 2 of Option III is a revised value. The number reported in this column was .61 in the original version of this table. However, this value was incorrect and this amendment proposes to correct this value.

Change 11: The values in Table 1 of Option IV for "N", " $D \times (1/N=1)$ ", "density of residual shrubs" and "density of residual subshrubs" in the row for the drainage bottomland vegetation community were incorrect as originally presented. These values were revised because of the fact that the drainage bottomland community actually supported 3 primary species rather than 2 as originally reported. This changed the value for "N" from 2 to 3. The corresponding value for $D \times (1/N+1)$ was changed from .07 to .05. The density of residual shrubs was increased from .067 to .075. In addition, the density of residual subshrubs was also increased from .067 to .075.

Change 15: The summation for the total postmining shrub acres was incorrectly reported as 390 in the original version of Table 1 for Option IV. This proposed amendment serves to correctly report a summation of 400 acres.

The authority to amend these rules is provided by W.S. §§ 35-11-112(a)(i) and 35-11-402(a)(iv).

FIGURE 1

OPTION I: PERMIT-WIDE SHRUB DENSITY, REDUCTION OF DENSITY POSSIBLE
COMPOSITION BASED ON FULL SHRUBS

Note: No reduction of density is possible when 20 percent or more of the eligible acreage supports a premining total shrub density of over 1 shrub per square meter.

TABLE 1

| Vegetation Community | Number of Acres Affected Following Rule Approval | Percent Eligible Acreage | Premining Total Shrub Density per m ² (1) | Premining Total Shrub Number |
|------------------------|--|--------------------------|--|------------------------------|
| Mixed Shrubland | 364.00 | 18.2 | 1.20 | 1,767,730 |
| Upland Grassland | 1506.00 | 75.3 | 0.80 | 4,875,826 |
| Scoria Grassland | 80.00 | 4.0 | 0.30 | 97,128 |
| Drainage Bottomland | 50.00 | 2.5 | 0.20 | 40,470 |
| Pastureland (2) | 300.00 | n/a | n/a | n/a |
| Total Eligible Acreage | 2000.00 | | | |
| Total Acreage | 2300.00 | | Premining No. of Shrubs | 6,781,153 |
| % Eligible/Total | 86.96 | | | |

(1) when the permit-wide standard is applied, premining density may be calculated from full shrubs only.
(2) pastureland excluded by regulation

TABLE 2

| Relative Premining Density for Primary Shrubs (≥ 10% Relative Density) | | | Postmining Total Shrub Density m ² D* | N | D* (1/N + 1) Density of Dominant per m ² | Density of Residual Shrubs per m ² | Density of Approved Subshrubs per m ² | 20% Acreage Reclaimed with Shrubs | Number of Shrubs Established |
|--|--------------------|---------------------|--|-------|---|---|--|-----------------------------------|------------------------------|
| Big Sagebrush | Rubber Rabbitbrush | Douglas Rabbitbrush | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0.43 | 0.13 | 0.21 | < = = = Numbers are weighted average relative density from Table 3 | | | | | | |
| Dominant Species for this Option: | | | BIG SAGEBRUSH | | | | | | |
| Reduced Permit-wide Standard | | | | | | | | | |
| 18.2% at 1/m ⁽²⁾ | 1.00 | 3 | 0.25 | 0.375 | 0.375 | 364.00 | 1,473,108 | | |
| 1.8% at .8/m ⁽²⁾ | 0.80 | 3 | 0.20 | 0.300 | 0.300 | 36.00 | 116,554 | | |
| 20 percent of eligible affected lands | | | | | | | | 400.00 | |
| | | | | | | | | Postmining No. of Shrubs | 1,589,662 |

* D = Postmining Total Shrub Density (e.g. 0.8 x [1/(3+1)] = 0.20)

TABLE 3

Relative Density Information for Species

Note: Relative density is calculated by number of individuals of each species divided by total number of individuals.

The value of the dominant species for each type is shaded **2**

| | Mixed Shrubland | Upland Grassland | Scoria Grassland | Drainage Bottomland | Weighted Average Relative Density** |
|----------------------------------|-----------------|------------------|------------------|---------------------|-------------------------------------|
| Silver sagebrush | 0.06 | | | 0.28 | 0.02 |
| Big sagebrush | 0.63 | 0.39 | 0.35 | 0.11 | 0.43 |
| Fourwing saltbush | | 0.03 | | | 0.02 |
| Black sagebrush | | 0.06 | 0.18 | | 0.05 |
| Rubber rabbitbrush | 0.19 | 0.13 | | | 0.13 |
| Douglas rabbitbrush | | 0.27 | 0.18 | | 0.21 |
| Wax currant | | | 0.05 | | 0.00 |
| Skunkbrush sumac | 0.12 | | 0.20 | | 0.03 |
| Greasewood | | | | 0.61 | 0.02 |
| Common snowberry | | 0.12 | 0.04 | | 0.09 |
| Full Shrub Total | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fringed sagewort* | 0.21 | 0.03 | | | 0.06 |
| Gardner's saltbush* | | 0.28 | | | 0.21 |
| Winterfat* | | | | 0.08 | 0.00 |
| All Full Shrubs/M ² * | 1.20 | 0.80 | 0.30 | 0.20 | |

*excludes these shrubs, which are not allowed to be included in Option I, II or III.

** Calculated by summing across communities the individual species density times the percent eligible acreage of each community divided by 100

FIGURE 2

OPTION II: PERMIT-WIDE SHRUB DENSITY, NO DENSITY REDUCTION POSSIBLE
COMPOSITION BASED ON FULL SHRUB

Note: No reduction of density is possible when 20 percent or more of the eligible acreage supports a premining total shrub density of over 1 shrub per square meter

TABLE 1

| Vegetation Community | Number of Acres Affected Following Rule Approval | Percent Eligible Acreage | Premining Total Shrub Density per m ² (1) | Premining Total Shrub Number |
|------------------------|--|--------------------------|--|------------------------------|
| Mixed Shrubland | 444.00 | 22.2 | 1.20 | 2,156,242 |
| Upland Grassland | 1,426.00 | 71.3 | 0.80 | 4,616,818 |
| Scoria Grassland | 80.00 | 4.0 | 0.30 | 97,128 |
| Drainage Bottomland | 50.00 | 2.5 | 0.20 | 40,470 |
| Pastureland (2) | 300.00 | n/a | n/a | n/a |
| Total Eligible Acreage | 2,000.00 | | | |
| Total Acreage | 2,300.00 | | Premining No. of Shrubs | 6,910,657 |
| % Eligible/Total | 86.96 | | | |

(1) when a permit-wide standard is applied, premining density may be calculated from full shrubs only
(2) pastureland excluded by regulation

TABLE 2

| 4 Relative Premining Density for Primary Shrubs (> 10% Relative Density) | Postmining Total Shrub Density per m ² D* | | | N | D* (1/N+1) Density of Dominant per m ² | Density of Residual Shrubs per m ² | Density of Approved Subshrubs per m ² | 20% Acreage Reclaimed with Shrubs | Number of Shrubs Established |
|---|--|--------------------|---------------------|--|--|---|--|-----------------------------------|------------------------------|
| | Big Sagebrush | Rubber Rabbitbrush | Douglas Rabbitbrush | | | | | | |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0.43 | 0.13 | 0.21 | < = = | Numbers to left are weighted average relative density from Table 3 | | | | | |
| Dominant Species for this Option: BIG SAGEBRUSH | | | | | | | | | |
| Permit-wide Standard | | | | | | | | | |
| 100% at 1/m ² | 1.00 | 3 | 0.25 | 0.375 | 0.375 | 400.00 | 1,618,800 | | |
| 20 percent of eligible affected lands | | | | | | | 400.00 | | |
| | | | | | | | Postmining No. of Shrubs | 1,618,800 | |

* D = Postmining Total Shrub Density (e.g. 1.0 x [1/(3+1)] = 0.25)

TABLE 3

Relative Density Information for Species

Note: Relative density is calculated by number of individuals of each species divided by total number of individuals.

The value of the dominant species for each type is shaded **5**

| | Mixed Shrubland | Upland Grassland | Scoria Grassland | Drainage Bottomland | Weighted Average Relative Density** |
|---------------------------------------|-----------------|------------------|------------------|---------------------|-------------------------------------|
| Silver sagebrush | 0.06 | | | 0.28 | 0.02 |
| Big sagebrush | 0.65 | 0.19 | 0.35 | 0.11 | 0.43 |
| Fourwing saltbush | | 0.03 | | | 0.02 |
| Black sagebrush | | 0.06 | 0.18 | | 0.05 |
| Rubber rabbitbrush | 0.19 | 0.13 | | | 0.13 |
| Douglas rabbitbrush | | 0.27 | 0.18 | | 0.21 |
| Wax currant | | | 0.05 | | 0.00 |
| Skunkbrush sumac | 0.12 | | 0.20 | | 0.03 |
| Greasewood | | | | 0.61 | 0.02 |
| Common snowberry | | 0.12 | 0.04 | | 0.09 |
| Full Shrub Total | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Fringed sagewort* | 0.21 | 0.03 | | | 0.07 |
| Gardner's saltbush* | | 0.28 | | | 0.20 |
| Winterfat* | | | | 0.08 | 0.00 |
| All Full Shrubs/M²* | 1.20 | 0.80 | 0.30 | 0.20 | |

*excludes these shrubs, which are not allowed to be included in Option I, II or III.

** Calculated by summing across communities the individual species density times the percent eligible acreage of each community divided by 100

OPTION III: COMMUNITY SPECIFIC SHRUB DENSITY -- COMPOSITION BASED ON FULL SHRUBS ONLY

TABLE 1

| Vegetation Community | Number of Acres Affected Following Rule Approval | | Percent Eligible Acreage | Premiating Shrub Density per m ² | | Postmiming Total Shrub Density "D" | N | Dominant Species | Density of Dominant per m ² | Density of Residual Shrubs per m ² | Approved Subshrubs per m ² | 20% Acreage Reclaimed with Shrubs | Number of Shrubs Established |
|------------------------|--|---------|--------------------------|---|-----------|------------------------------------|---------------|------------------|--|---|---------------------------------------|-----------------------------------|------------------------------|
| | Rule Approval | Acreage | | Shrub Density | Number | | | | | | | | |
| Mixed Shrubland | 364 | 18.2 | 1.20 | 1,767,730 | 1.00 | 3 | Big Sagebrush | 0.25 | 0.38 | 0.38 | 72.80 | 294,622 | |
| Upland Grassland | 1506 | 75.3 | 0.80 | 4,875,826 | 0.80 | 4 | Big Sagebrush | 0.16 | 0.32 | 0.32 | 301.20 | 975,165 | |
| Scoria Grassland | 80 | 4.0 | 0.30 | 97,128 | 0.30 | 4 | Big Sagebrush | 0.06 | 0.12 | 0.12 | 16.00 | 19,426 | |
| Drainage Bottomland | 50 | 2.5 | 0.20 | 40,470 | 0.20 | 3 | Greasewood | 0.05 | 0.08 | 0.08 | 10.00 | 8,094 | |
| Pastureland (1) | 300 | n/a | n/a | | | | | | | | | | |
| Total Eligible Acreage | 2000 | | | Premiating | | | | | | | 400.00 | | |
| Total Acreage | 2300 | | | No. of Shrubs | 6,781,153 | | | | | | | | |
| % Eligible/Total | 87.0 | | | | | | | | | | | | |

Total Postmiming Shrub Acres

Postmiming No. of Shrubs 1,297,306

(1) pastureland excluded by regulation

D = Postmiming Total Shrub Density (e.g. $0.8 \times [1/(4+1)] = 0.16$)

TABLE 2

Relative Density Information for Species -- Full Shrubs Only

The value of the dominant species for each type is shaded

| Species | Mixed Shrubland | Upland Grassland | Scoria Grassland | Drainage Bottomland |
|---------------------|-----------------|------------------|------------------|---------------------|
| Silver sagebrush | 0.06 | | | 0.38 |
| Big sagebrush | 0.33 | 0.29 | 0.25 | 0.11 |
| Fourwing saltbush | | 0.03 | | |
| Black sagebrush | | 0.06 | 0.18 | |
| Rubber rabbitbrush | 0.19 | 0.13 | | |
| Douglas rabbitbrush | | 0.27 | 0.18 | |
| Wax currant | | | 0.05 | |
| Skunkbrush sumac | 0.12 | | 0.20 | |
| Greasewood | | | | 0.33 |
| Common snowberry | | 0.12 | 0.04 | |
| Full Shrub Total | 1.00 | 1.00 | 1.00 | 1.00 |
| Fringed sagewort* | 0.21 | 0.03 | | |
| Gardner's saltbush* | | 0.28 | | 0.08 |
| Winterfat* | | | | |
| Number shrubs > 1 | 3 | 4 | 4 | 3 |
| All Full Shrubs/AT* | 1.20 | 0.80 | 0.30 | 0.20 |

89

10

*excludes these subshrubs, which are not allowed to be included in Option I, II or III

OPTION IV: COMMUNITY SPECIFIC SHRUB DENSITY -- COMPOSITION BASED ON FULL SHRUBS AND APPROVED SUB-SHRUBS

TABLE 1

| Vegetation Community | Number of Acres Affected | | Percent Eligible Acres | Premuning Shrub Density per m ² | Premuning Total Shrub Number | Postmining Total Shrub Density m ² *D* | N | Dominant Species | D x (1/N + 1) Density of Dominant per m ² | Density of Residual Shrubs per m ² | Density of Residual Subshrubs per m ² | 20% Acreage Reclaimed with Shrubs | Number of Shrubs Established |
|------------------------------|--------------------------|-----------|------------------------|--|------------------------------|---|-----------|--------------------|--|---|--|-----------------------------------|------------------------------|
| | Rule Approval | Following | | | | | | | | | | | |
| Mixed Shrubland | 364 | 18.2 | n/a | 1.40 | 2,062,351 | 1.00 | 3 | Big Sagebrush | 0.25 | 0.375 | 0.375 | 72.80 | 294,622 |
| Upland Grassland | 1506 | 75.3 | | 1.10 | 6,704,260 | 1.00 | 3 | Gardner's Saltbush | 0.25 | 0.375 | 0.375 | 301.20 | 1,218,956 |
| Scoria Grassland | 80 | 4.0 | | 0.30 | 97,128 | 0.30 | 4 | Big Sagebrush | 0.06 | 0.120 | 0.120 | 16.00 | 19,426 |
| Drainage Bottomland | 50 | 2.5 | | 0.20 | 40,470 | 0.20 | 3 | Greenswood | 0.05 | 0.075 | 0.075 | 10.00 | 8,094 |
| Pastureland (1) | 300 | n/a | | n/a | | | 11 | | | | | | |
| Total Eligible Acreage | 2000 | | | | | | | | | | | 400.00 | 15 |
| Total Acreage | 2300 | | | | | | | | | | | | |
| % Eligible/Total | 87.0 | | | | | | | | | | | | |
| Total Postmining Shrub Acres | | | | | | | | | | | | | 1,533,004 |
| Premuning Number of Shrubs | | | | | | | | | | | | | 8,904,209 |

(1) pastureland excluded by regulation
 *D = Postmining total Shrub Density (e.g. $(0.3 \times [1/(4+1)]) = .06$)

Figure 4

TABLE 2

Relative Density Information for Species -- Full Shrubs and Subshrubs

The value of the dominant species for each type is shaded.

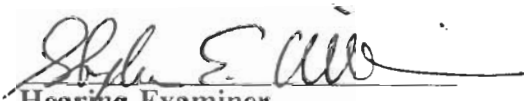
| Species | Mixed Shrubland | Upland Grassland | Scoria Grassland | Drainage Bottomland |
|---|-----------------|------------------|------------------|---------------------|
| Silver sagebrush | 0.05 | 0.27 | 0.35 | 0.26 |
| Big sagebrush | 0.31 | 0.02 | 0.18 | 0.10 |
| Fourwing saltbush | | 0.04 | | |
| Black sagebrush | | 0.09 | | |
| Rubber rabbitbrush | 0.15 | 0.19 | | |
| Douglas rabbitbrush | | 0.05 | | |
| Wax currant | | 0.20 | | |
| Skunkbrush sumac | 0.09 | | | |
| Greenswood | | | 0.04 | |
| Common snowberry | | 0.08 | | |
| Fringed sagewort | | 0.03 | | |
| Gardner's saltbush | 0.21 | 0.28 | | |
| Winterfat | | | | 0.08 |
| Full & Subshrub Total | 1.00 | 1.00 | 1.00 | 1.00 |
| Shrubs and subshrubs > .1 | 3 | 3 | 4 | 3 |
| All Shrubs and Approved Subshrubs/Al ² | 1.40 | 1.10 | 0.30 | 0.20 |

Conclusion

The Environmental Quality Council, in accordance with the authority granted to it by W.S. § 35-11-112 As Amended, and having complied with the provisions of the Wyoming Administrative Procedures Act, finds as follows:

1. These rules provide for the regulation of surface coal mining and reclamation operations in accordance with the requirements of P.L. 95-87.
2. These rules and regulations are as effective as those promulgated by the Secretary of the Interior pursuant to P.L. 95-87.
3. These regulations are necessary and appropriate 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 resources and secure cooperation between agencies of the State and Federal Government in carrying out the policy and purposes of the Environmental Quality Act.
4. These regulations are reasonable and necessary for the effectuation of W.S. § 35-11-101 through W.S. § 35-11-1304, As Amended.
5. These rules and regulations are necessary and appropriate to protect the public health, safety, welfare, and environment of the State of Wyoming.

Dated this 2nd day of March, 1998.


Hearing Examiner
Environmental Quality Council