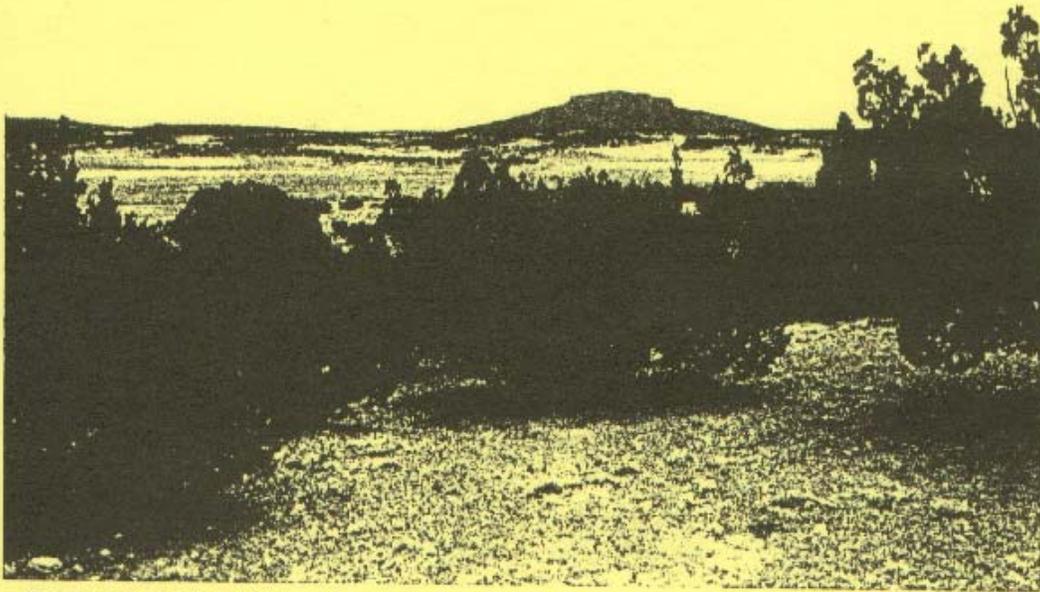


Federal Coal Lands Review Process



San Augustine Coal Area

FEDERAL COAL LANDS REVIEW AND IMPACT ANALYSIS PROCESS

INTRODUCTION

The regulations set forth in Title 43 of the Code of Federal Regulations (CFR), Subpart 3400, provide the framework under which the Department of the Interior (hereinafter referred to as the Department) conducts leasing of the rights to extract Federal coal. The objectives of these regulations are to establish policies and procedures for considering development of coal deposits through a leasing system involving land—use planning and environmental impact analysis. Additionally, the regulations are intended to ensure that coal deposits are developed in consultation, cooperation, and coordination with the public, State and local governments, Indian tribes, and involved Federal agencies.

The Secretary of the Interior may not hold a lease sale unless the lands containing the coal deposits have been included in a comprehensive land—use plan and unless the sale is compatible with, and conforms to, any relevant stipulations, guidelines and standards set out in the plan.

More detailed information on the area can be found in the Draft Divide Management Framework Plan (MFP) Amendment [Bureau of Land Management (BLM) 1984] at the BLM office in Socorro, New Mexico. It should be noted that since all four land—use planning screens for coal (coal development potential, surface owner consultation, unsuitability criteria and multiple—use screens) were applied to the area, the remaining Federal lands contained therein were carried forward. Figure F—1 describes the screen application process. Those lands that were identified as acceptable for further leasing consideration served as a pool from which tracts were delineated. These tracts will undergo further analysis to determine whether or not they will be leased.

APPLICATION OF THE LAND—USE PLANNING SCREENS COAL DEVELOPMENT POTENTIAL

The coal development potential screen identifies lands suitable for further consideration for leasing for coal development within the planning cycle, which is assumed to be ten to twenty years. The coal development potential screen has been applied to the San Augustine Coal Area (SACA).

The determination of the area of maximum coal development potential is based on the following criteria:

1. Strippable reserve—base — a correlatable coal seam at least 2.3 feet thick, deeper than 20 feet and shallower than a 15 to 1 stripping ratio, with a maximum depth of 250 feet.
2. Underground minable reserve—base — a correlatable seam at least 5 feet thick and beyond the 15 to 1 stripping ratio limit.

All discernible areas meeting these criteria, plus a number of small areas with greater than a 15 to 1 stripping ratio, and areas of underground minable reserve—base are included in the area of maximum coal development potential for the SACA.

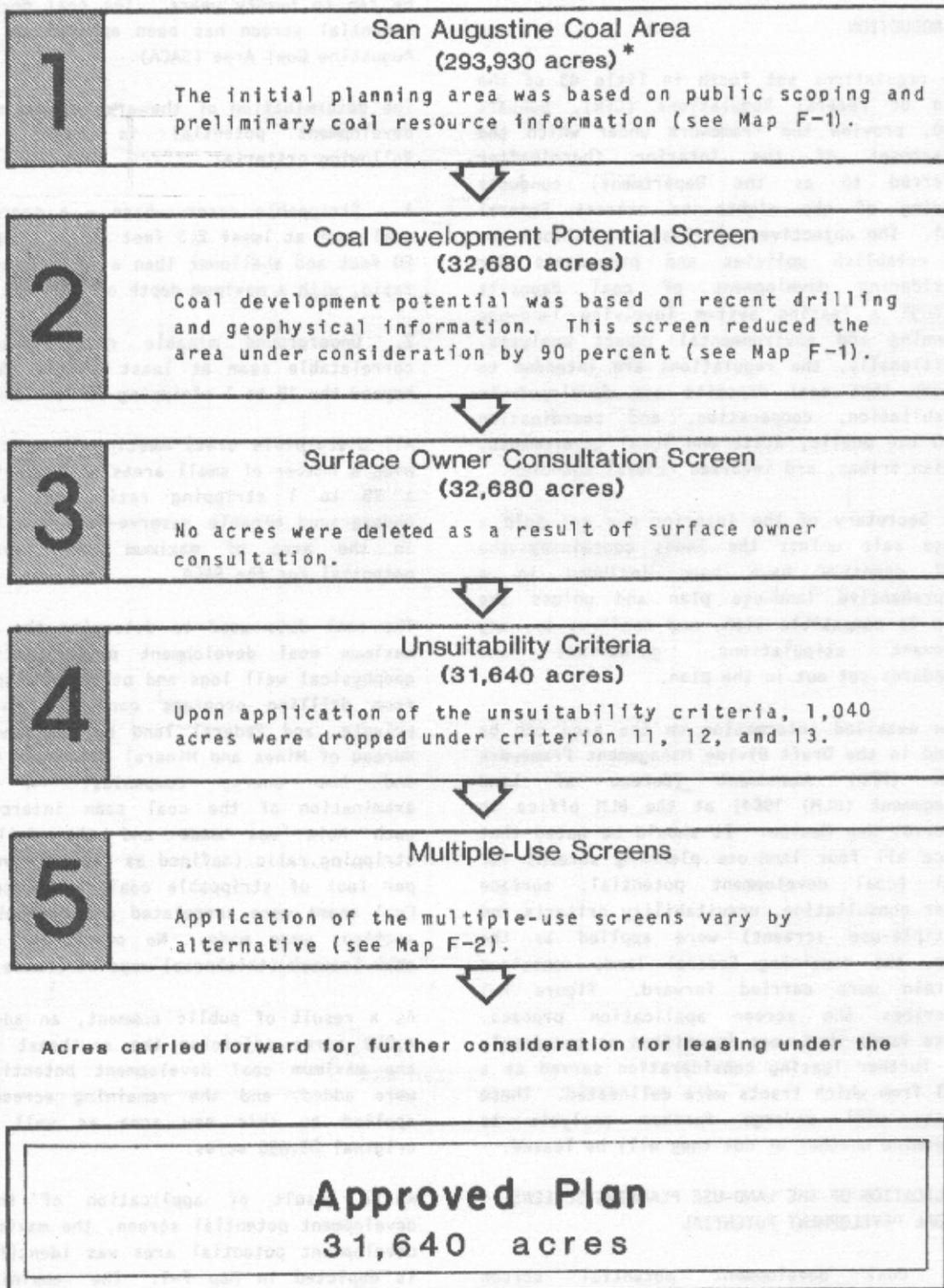
The coal data used to determine the area of maximum coal development potential included geophysical well logs and other bore—hole data from drilling programs conducted on State, private, and Federal land by the New Mexico Bureau of Mines and Mineral Resources (NMBMMR) and two energy companies. A cursory examination of the coal seam intercepts in each hole was made and the drill hole stripping ratio (defined as feet of overburden per foot of strippable coal) was determined. Coal seams were correlated and geologic cross sections were made. No overburden or coal seam isopack (thickness) maps were made.

As a result of public comment, an additional 4,000 acres adjoining the southeast edge of the maximum coal development potential area were added, and the remaining screens were applied to this new area as well as the original 28,680 acres.

As a result of application of the coal development potential screen, the maximum coal development potential area was identified and is depicted in Map F—1. The remaining land use planning screens were applied to this area.

FIGURE F-1

Application of Coal Land-Use Planning Screens for Impact Analysis



* All acre figures represent the affected Federal coal

SURFACE OWNER CONSULTATION

Consultation with surface owners has been completed within the SACA. Potential qualified surface owners have been informed of the consent and refusal to consent procedures as described in 43 CFR 3400.

The surface owner consultation process is designed to estimate the attitudes of the individuals whose lands and livelihoods may be directly affected by Federal coal leasing. This process may result in the elimination of lands for further leasing consideration if significant opposition exists. This process is preliminary to the actual surface owner consent process where an absolute determination is necessary.

A survey of the 128 surface landowners within the initial SACA was conducted to ascertain their opinions concerning coal development within the area. Generally, 49 percent of the surface owners favor coal development, 17 percent do not favor coal development, and 34 percent reflected no opinion, were undecided, or had no comment. Ten of the landowners consulted own approximately 85 percent of the private surface estates, within the area of maximum coal development potential and which have reservations of coal to the United States. Of these ten, four were supportive of future coal development. These four landowners control approximately 57 percent of the split estate acreage, in the area of maximum coal development. Only one landowner, controlling 3 percent of the acreage, opposed coal development due to anticipated environmental impacts. Three of the ten surface owners, who control approximately 34 percent of the split estate acreage, were undecided. No responses were received from the two landowners who control 6 percent of the split estate lands within the area of maximum coal development potential. As a result of our review, it was determined that the identified opposition was not significant enough to delete any of the maximum coal development areas from further consideration for leasing. It should be stressed that no Federal coal may be mined on split—estate lands until consent is formally acquired from all directly affected qualified surface owners. No areas were deleted from further lease consideration as a result of applying this screen to the 4,000 acres added as a result of public comment.

APPLICATION OF UNSUITABILITY CRITERIA

As required by the Surface Mining Control and Reclamation Act of 1977, the Department has developed criteria to determine whether public lands are unsuitable for further consideration for coal leasing. This unsuitability assessment was applied to the area identified as passing the coal development potential and surface owner consultation screens, above. In the following discussion, the results of the application of each of the unsuitability criteria and exceptions are described.

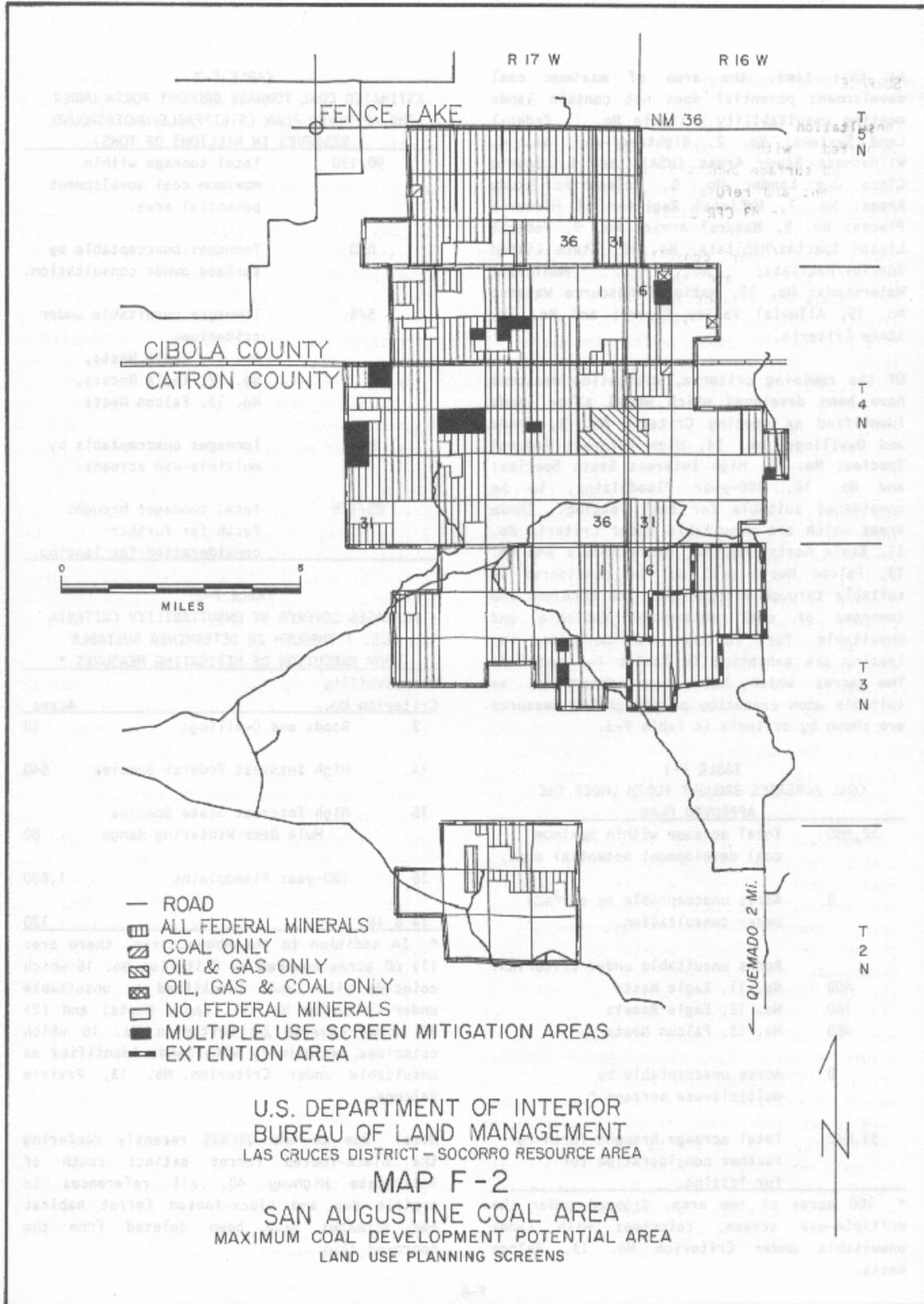
The 20 unsuitability criteria contained in 43 CFR 3461.1 were used to assess the unsuitability for mining of the SACA. The intent of the unsuitability criteria application is to identify the areas within the SACA which could not be properly protected or maintained if the area were leased for coal mining.

After initial survey of the entire 448,920 acres of the SACA, unsuitable areas, meeting specific criteria, were identified and included in the 1984 Divide Unit Resource Analysis Addendums. Following the identification and formulation of alternatives to be addressed by this RMP and as a result of public comments submitted, affected resources within the 28,680—acre maximum coal development potential area were reexamined in light of the current set of unsuitability criteria, and 4,000 acres were added for a total of 32,680 acres. In other words, the original maximum coal development potential area boundary was extended (Map F—2).

No areas were deleted as a result of applying this screen to the 4,000 additional acres.

SUMMARY

The unsuitability criteria which affect lands within the SACA are displayed on the unsuitability criterion overlays 1 through 5 which are available for public review at the BLM Socorro Resource Area (SRA) Office, Socorro, New Mexico.



At this time, the area of maximum coal development potential does not contain lands meeting unsuitability Criteria No. 1, Federal Land Systems; No. 2, Rights-of-way; No. 4, Wilderness Study Areas (WSA); No. 5, Scenic Class One Lands; No. 6, Scientific Study Areas; No. 7, National Register of Historic Places; No. 8, Natural Areas; No. 9, Federal Listed Species/Habitats; No. 10, State Listed Species/Habitats; No. 17, Municipal Watersheds; No. 18, National Resource Waters; No. 19, Alluvial Valley Floors; and No. 20, State Criteria.

Of the remaining criteria, mitigating measures have been developed which would allow lands identified as meeting Criteria No. 3, Roads and Dwellings; No. 14, High Interest Federal Species; No. 15, High Interest State Species; and No. 16, 100-year Floodplains, to be considered suitable for coal leasing. Those areas which are unsuitable under Criteria No. 11, Eagle Nests, No. 12, Eagle Roosts and No.13, Falcon Nests will not be considered as suitable through mitigation. The acreages and tonnages of coal determined suitable and unsuitable for further consideration for leasing are exhibited in Tables F—1 and F—2. The acres which have been determined as suitable upon execution of mitigating measures are shown by criteria in Table F—3.

TABLE F—1
COAL ACREAGES BROUGHT FORTH UNDER
THE
APPROVED PLAN

32,680	Total acreage within maximum coal development potential area.
0	Acres unacceptable by surface owner consultation.
	Acres unsuitable under criterion:
400	No. 11, Eagle Nests
160	No. 12, Eagle Roosts
480	No. 13, Falcon Nests
0	Acres unacceptable by multiple—use screens.*
31,640	Total acreage brought forth for further consideration for leasing.

* 160 acres of the area, dropped under the multiple—use screen, coincides with lands unsuitable under Criterion No. 13, Falcon Nests.

TABLE F—2
ESTIMATED COAL TONNAGE BROUGHT FORTH UNDER THE APPROVED PLAN (STRIPPABLE/UNDERGROUND RESERVES IN MILLIONS OF TONS)

90/130	Total tonnage within maximum coal development potential area.
0/0	Tonnages unacceptable by surface owner consultation.
5/5	Tonnages unsuitable under criterion: No. 11, Eagle Nests, No. 12, Eagle Roosts, No. 13, Falcon Nests
0/0	Tonnages unacceptable by multiple—use screens.
85/125	Total tonnages brought forth for further consideration for leasing

TABLE F—3 ACREAGES COVERED BY UNSUITABILITY CRITERIA NOS. 1 THROUGH 20 DETERMINED SUITABLE UPON EXECUTION OF MITIGATING MEASURES*

Unsuitability Criterion No.		Acres
3	Roads and Dwellings	10
14	High Interest Federal Species	640
15	High Interest State Species Mule Deer Wintering Range	80
16	100—year Floodplains	1,800
<u>14 & 16</u>		<u>120</u>

* In addition to the above areas, there are: (1) 60 acres covered by Criterion No. 16 which coincide with lands identified as unsuitable under Criterion No. 11, Eagle Nests; and (2) 80 acres covered by Criterion No. 16 which coincides exclusively with lands identified as unsuitable under Criterion No. 13, Prairie Falcons.

Note: Due to the USF&WS recently declaring the black—footed ferret extinct south of Interstate Highway 40, all references to prairie dog and black—footed ferret habitat and acreages have been deleted from the Approved Plan.

3461.1 (a)(1) Criterion Number 1

All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests, and Federal lands in incorporated cities, towns, and villages.

There are no Federal lands systems within the SACA; therefore, this criterion does not apply.

3461.1(b)(1) Criterion Number 2

Federal lands that are within rights—of—way or easements or within surface leases for residential, commercial, industrial, or other public purposes. Federally—owned surface shall be considered unsuitable.

There are no Federal lands rights—of—way or easements in the maximum coal development potential area; therefore, this criterion does not apply.

3461.1(c)(1) Criterion Number 3

Federal lands affected by section 522(e)(4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right—of—way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

Presently there is only one dwelling located on Federal lands within the area of maximum coal development potential. This dwelling is occupied and is displayed on Unsuitability Criterion Overlay No.1. No cemeteries, including single grave sites or public road rights—of—way, have been identified within the area under review. A legal description of this land is included in the Divide Unit Resource Analysis Addendum (Step 3. Lands, .41).

Exceptions — Lands within the area of maximum coal development potential which are affected by this criterion can be considered suitable for further coal lease consideration with the following stipulations:

1. A lease may be issued for lands for which owners of occupied dwellings have given written permission to mine within 300 feet of their buildings.

3461.1(d)(1) Criterion Number 4

Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

There are no WSAs in the maximum coal development potential area; therefore, this criterion does not apply.

3461.1(e)(1) Criterion Number 5

Scenic Federal lands designated by visual resource management analysis as Class I (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

There are no visual resource management (VRM) Class I areas in the maximum coal development potential area; therefore, this criterion does not apply.

3461.1(f)(1) Criterion Number 6

Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

The maximum coal development potential area does not contain lands being utilized for this purpose.

3461.1(g)(1) Criterion Number 7

All publicly and privately owned places on Federal lands which are included in the National Register of Historic Places shall be considered unsuitable. This shall include any areas that the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO), are necessary to protect the inherent values of the property that made it eligible for listing in the National Register.

Although it is interpreted that this also includes privately—owned archaeological sites above Federal coal, no lands within the maximum coal development potential area meet this criterion. Archaeological sites do exist within the suitable area which are significant and which may be eligible for listing on the National Register of Historic Places.

NOTE: These archaeological sites and socio—cultural sites clearly meet the definition of a resource of a unique nature with local or regional importance. These sites are considered under the multiple—use screen.

3461.1(h)(1) Criterion Number 8

Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

The maximum coal development potential area does not contain lands designated as natural areas or National Natural Landmarks.

3461.1(i)(1) Criterion Number 9

Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain Federally designated critical habitat for threatened or endangered (T&E) plant and animal species or habitat for T&E species determined to be of essential value by the Fish and Wildlife Service (FWS) and the surface management agency.

3461.1(i)(1) Criterion Number 10

Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a State pursuant to State law as endangered or threatened shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain Federal lands containing habitat determined to be critical or essential for plant or animal species listed by the State of New Mexico as T&E.

3461.1(k)(1) Criterion Number 11

A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of

land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Eagle nesting habitat located within the SACA was surveyed during the summer/fall of 1983. A Raptor Nest Report was initiated for each nest or group of nests located. Tentative buffer zones were identified and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these tentative buffer zones is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). Following a nesting survey conducted during the spring of 1987, those locations identified as active were retained on the unsuitability criterion overlay. The acreages identified as unsuitable (400 acres) are exhibited in Table F—1.

Exception — The BLM with concurrence from the FWS, has determined that mitigating measures are neither practical nor desirable at this time.

3461.l(l)(1) Criterion Number 12

Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

Year—round eagle roosting areas have been identified within the maximum coal development potential area and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these roosting areas is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). The acreages identified as unsuitable (160 acres) under this criterion are exhibited in Table F—1.

Exceptions — The BLM with concurrence from the FWS has determined that mitigating measures are neither practical nor desirable at this time.

3461.l(m)(1) Criterion Number 13

Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Falcon nesting habitat located within the maximum coal development potential area was surveyed during the summer/fall of 1983. A Raptor Nest Report was initiated for each nest or suspected nest located. Tentative buffer zones were identified and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these tentative buffer zones is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). Following a nesting survey conducted during the spring of 1987, those locations determined to be active were retained on the unsuitability criterion overlay. The acres identified as unsuitable (480 acres) under this criterion are exhibited in Table F—1.

Additional spring surveys are conducted within the maximum coal development potential area yearly. Results of these surveys may change the amount of Federal mineral estate determined unsuitable because of this criterion.

Exceptions — The BLM, with concurrence from the FWS, has determined that mitigating measures are neither practical nor desirable at this time.

3461.l(n)(1) Criterion Number 14

Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

High priority habitat is defined as an area containing one or more limited environmental factors needed to support a population of at least one of the listed species. All high priority habitat must meet the following criteria:

1. It must be used regularly (use may be limited to one season during the year) by one or more of the listed species.
2. Its availability for uses such as feeding, reproduction, nesting, molting and/or wintering must be either limited or supportive of concentrations of a listed species in the indicated coal region or subregion.
3. It must contain a combination of natural or man—made factors; eg., riparian vegetation, reservoirs, cliff sites, tall buildings, etc.that provide an essential quantity or quality of one or more of the habitat requirements of a listed species; i.e., food, water, cover or space.

In order to assess an area as being unsuitable for all or certain stipulated methods of coal mining, both the “high Federal interest” and the “high priority habitat” aspects of this criterion must be met; eg., an area must support listed species and contain habitat of these species which meet all three of the above indicated habitat criteria.

The areas identified as meeting criterion number 14 are identified on the Unsuitability Overlay No. 4. A description and listing of locations of these areas are included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). These areas are intermittent wetlands, playas or reservoirs which contain water during the spring and early summer, produce forbs during the summer, and contain water during the fall and winter. These areas are known to be utilized during the spring and fall migrations by: white—faced ibis, western grebe, great blue heron, long—billed curlew and large concentrations of migratory waterfowl which provide a prey base for wintering bald eagles. At this time no Ferruginous hawk nest locations are known to occur on Federal mineral estate within the maximum coal development potential area. Additional surveys will be conducted within the maximum coal development potential area yearly. Results of these surveys may change the amount of Federal mineral estate determined unsuitable because of this criteria.

Exceptions — The 640 acres identified as meeting criterion 14 within the maximum coal development potential area can be considered suitable for further coal lease consideration by applying the following stipulations:

1. Affected wetlands and appropriate drainages sufficient to provide equal or enhanced habitat values will be replaced by the lessee on a site—specific basis.
2. The lessee will consult with the BLM; the BLM will consult with the surface owner, FWS and New Mexico Department of Game and Fish (NMDG&F) prior to alteration of the affected wetland.

3461.1(o)(1) Criterion Number 15

Federal lands which the surface management agency and the State jointly agree are fish and wildlife habitat for resident species of high interest to the State and which are essential for maintaining these priority wildlife species shall be considered unsuitable.

The areas identified under criterion number 14 can also be applicable to criterion 15; in addition, the NMDG&F has identified mule deer and ferruginous hawks. Pronghorn antelope are included under this criterion because of the occurrence of an isolated herd utilizing a restricted habitat on a mesa top in the area.

Areas identified as mule deer winter range within the maximum coal development potential area are also adjacent to or included in the areas covered by criterion 12 — eagle roosting areas. Mule deer wintering range (80 acres) are included under this criterion.

Those areas identified under criterion 14 are included in the exception for that criterion.

Exceptions — The areas identified as prairie dog locations will be suitable for further coal lease consideration by incorporating the following stipulations:

1. Proposed activities in or adjacent to the identified area will be preceded by a complete black-footed ferret inventory of the prairie dog colony.

2. All black-footed ferret inventory and survey procedures conducted by the lessee will be reviewed and approved by BLM in consultation with the FWS and the NMDG&F.

3461.l(p)(l) Criterion Number 16

Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

The first drainages that were analyzed for 100-year floodplain determination were those that drained at least ten square miles. Watersheds were delineated for all of SACA and tentative floodplain transect locations established. Two or more transects were run for each probable floodplain location using the stadia method. Channel cross sections were drawn and flood stages marked on them. The United States Geological Survey (USGS) method from Water Resources Investigations 82-24, "Techniques for Estimated Flood Discharges for Unregulated Streams in New Mexico", and H. R. Hejl, Jr.'s (USGS) draft paper "Streamflow Characteristics as Related to Basin Characteristics in Strippable Coal—Resource Areas of Northwestern New Mexico" were used to determine the 100-year flood discharge. The resultant discharges computed using the two different methods were very close. Using the Manning's equation and knowing the channel geometry and stage relationship, the 100-year floodplain was then determined and drawn on 7.5 minute topographic maps. The floodplains were later verified with aerial photographs. To accurately determine the 100-year floodplain, USGS said that about 20 floodplain transects per area are needed and the floodplains should be mapped on one-foot contour interval maps. Due to the tight budget, large area, and lack of manpower, it was not possible to delineate the floodplains to that degree of accuracy.

Playas were delineated by aerial photo interpretation, vegetative types, and field observations. Four large detention dams that hold between 55 and 152 acre-feet of water were also considered unsuitable.

Although the 1,800 acres delineated as floodplains are blocked out in 40-acre tracts, the actual floodplain usually represents a much smaller area. Actual floodplain boundaries have been digitized and maps are available for reviewing at the SRA.

Floodplains are displayed on Unsuitability Criteria Overlay No. 5. All of the 100-year occurrence floodplains in the maximum coal development potential area can be mitigated because they do not represent a substantial threat to life or property.

3461.l(a)(l) Criterion Number 17

Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain any municipal watersheds.

3461.l(r)(l) Criterion Number 18

Federal lands with national resource waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands 1/4 mile from the outer edge of the far banks of the water, shall be unsuitable.

At this time, the maximum coal development potential area does not contain lands identified by the State of New Mexico as meeting this criterion.

3461.l(s)(l) Criterion Number 19

Federal lands identified by the surface management agency, in consultation with the State in which they are located, as alluvial valley floors according to the definition in 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the

Office of Surface Mining (OMS) Reclamation and Enforcement when published, and approved State programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

At this time, the maximum coal development potential area does not contain lands identified as alluvial valley floors (30 CFR Chapter VII).

3461.1(t)(1) Criterion Number 20

Federal lands in a state to which is applicable a criterion (i) proposed by that state, and (ii) adopted by rule making by the Secretary, shall be considered unsuitable.

At this time, the State of New Mexico has not proposed nor has the Secretary adopted any special or additional criterion other than those criterion presented in Parts 2, 3, and 4 of the New Mexico Coal Surface Mining Commission Rule 80—1 which corresponds with segments of the Federal 3461.1 regulations.

MULTIPLE—USE CONFLICT ANALYSIS

The multiple—resource use screens are intended to eliminate lands from further consideration for coal leasing if other resources on those lands are determined to be locally important or unique. In general, a multiple—use trade—off is appropriate when one land use; e.g. mining, would be likely to preclude or limit use of other valuable resources not otherwise covered by the 20 unsuitability criteria. The readjustments at this stage in the land—use planning process are made to accommodate unique, site—specific resource values clearly superior to coal but which are not included in the unsuitability criteria. A prime recreation site or campground might be an example.

The present planning effort weighs the effects of the additional multiple—use screens on the areas which have passed the three previously mentioned screens. The results of these analyses are summarized below. It should be noted that additional inventory for cultural resources, raptor nests, etc., could require the reapplication of multiple—use and unsuitability criteria screens at coal activity planning. Under the Approved Plan no acres were declared unacceptable because all multiple—use screens were mitigated. No areas were deleted as a result of applying this screen to the additional 4,000 acres. Those screens which are applied are presented in Table F—1

MULTIPLE-USE SCREENING ANALYSIS

No.1: Wetlands

Wetlands larger than one acre will considered unacceptable.

DEFINITION: BLM Manual 6740 defines wetlands as follows:

“Permanently wet or intermittently flooded areas where the water table (fresh, saline, or brackish) is at, near, or above the soil surface for extended intervals, where hydric wet soil conditions are normally exhibited, and where water depths generally do not exceed two meters. Vegetation is generally comprised of emergent water—loving forms (hydrophytes) which require at least a periodically saturated soil condition for growth and reproduction. In certain instances vegetation may be completely lacking. Marshes, shallows, swamps, muskegs, lake bogs, and wet meadows are examples of wetlands “

These are poorly drained areas, as a rule having impervious soils (no substantial ground water recharge). They may on occasion be in contact with the groundwater system, but for the most part they receive water from precipitation and overland runoff.

The above definition will be used for the multiple—use screen with the following modification. Marshes, shallows, swamps, and

wet meadows less than one acre will not be considered under this definition. It will not include saltgrass flats associated with intermittent arroyos or small seasonally flooded livestock reservoirs that do not support emergent vegetation.

ANALYSIS: There are no wetlands larger than one acre in either of the areas under consideration. This analysis is based on field inventories.

NO. 2: RIPARIAN HABITAT

Riparian Habitat will be considered unacceptable.

DEFINITION: Manual 6740 defines riparian habitat as follows:

A specialized form of wetland restricted to areas along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, also, periodically flooded lake and reservoir shore areas, as well as lakes with stable water levels with characteristic vegetation. This habitat is transitional between true bottomland wetlands and upland terrestrial habitats and, while associated with water courses, may extend inland for considerable distances. Soils of the riparian habitat may not exhibit typical wet soil characteristics of other wetlands. If not, wet soil characteristics will exist close enough to the surface for the water to be used directly by vegetation. This vegetation may range from water-loving hydrophytes (such as pond weeds) through terrestrial forms (such as sycamores, cottonwoods, and willows).”

In these areas soil and soil structure permit groundwater movement both vertically and horizontally. Groundwater recharge can occur.

For the purpose of the multiple—use screen the above definition will be used with the following condition: isolated cottonwood trees, tamarisk stands less than one acre, and desert arroyos with greasewood, rabbitbrush, or fourwing saltbush borders will not be considered as riparian habitat. They are more properly treated as a special habitat feature.

ANALYSIS: Using the above definition, there is no riparian habitat in any of the areas under consideration. This analysis is based on field inventories.

NO. 3: PROPOSED THREATENED OR ENDANGERED (T&E) SPECIES

Habitat supporting populations or individuals of species proposed for Federal or State listing as T&E will be considered unacceptable.

ANALYSIS: There are no proposed T&E species within any of the areas under consideration. This analysis is based on field inventories and consultations with the FWS and NMDG&F.

NO. 4: FEDERAL LANDS CONTIGUOUS TO THE NATIONAL TRAIL SYSTEM AND THE NATIONAL WILDERNESS SYSTEM

Federal lands within one—half mile of units of the National System of Trails, and the National Wilderness Preservation System, shall be considered unacceptable.

ANALYSIS: There are no Federal land systems within one—half mile of any of the areas under consideration. Therefore, this multiple—use screen will not apply.

NO. 5: CLASS II VISUAL RESOURCE MANAGEMENT (VRM) AREAS

Areas that contain VRM Class II objectives shall be considered unacceptable for surface coal mining.

ANALYSIS: There are no coal tracts that lie within areas that contain VRM Class II management objectives.

NO. 6: AREAS OF SIGNIFICANT RECREATION USE OR OPPORTUNITY

Special Recreation Management Areas (SRMA) and areas that contain Recreation Opportunity Spectrum (ROS) management objective for the primitive class (see Appendix I in the Proposed Plan), shall be considered unacceptable for surface coal mining.

ANALYSIS: There are no areas with VRM Class II management objectives, SRMAs, or ROS Primitive class management objectives in the maximum coal development potential area.

NO. 7: SOLE—SOURCE AQUIFERS

An area formally designated by the Environmental Protection Agency (EPA) as a sole—source aquifer shall be considered unacceptable.

ANALYSIS: The sole—source aquifer program under the Safe Drinking Water Act permits citizens to petition EPA for designation of an area as a sole—source aquifer if it is the principal water supply. If so designated, EPA reviews all Federally assisted projects which may affect the quality of groundwater in the sole—source aquifer.

There have been no sole—source aquifer designations in the maximum coal development potential area under this program to date.

NO. 8: AIR QUALITY

Lands within 15 miles of air quality Class I Prevention of Significant Deterioration (PSD) areas shall be considered unacceptable.

ANALYSIS: There are no Class I (PSD) areas within or adjacent to the maximum coal development potential area.

NO. 9: RESERVED FEDERAL LANDS

All Federal lands included in the following land systems or categories shall be considered unacceptable: Federal Aviation Administration (FAA) facilities; all site withdrawals (administrative, school, etc.) for Federal agencies and leases acquired under the Recreation and Public Purposes (R&PP) Act.

ANALYSIS: There are no Federal lands within the maximum coal development potential area under consideration which are reserved for FM facilities, site withdrawals for Federal agencies (administrative, school, etc.) or leases acquired under the R&PP Act.

EXCEPTION: A lease may be issued and mining operations approved if, after consultation with the affected Federal agency or lessee, the surface management agency determines that the facility will not be adversely affected by all or certain stipulated methods of coal mining.

NO. 10: RIGHT—OF—WAY WINDOWS OR CORRIDORS

Federal lands which have been committed by the surface management agency to use as rights—of—way windows or corridors shall be considered unacceptable.

ANALYSIS: No Federal lands which have been designated or recommended for designation, as rights—of—way windows or corridors, are within the areas under consideration.

NO. 11: PALEONTOLOGICAL RESOURCES

Any paleontological resources which are type localities for fauna that define regional or larger time—stratigraphic units, and special management areas (SMA) set aside for their paleontological values, shall be considered unacceptable. However, coal mining can be allowed if the authorized officer (in consultation with affected Federal/State agencies) determines that mining activities will enhance and facilitate access and scientific evaluation of paleontological resources.

ANALYSIS: This multiple—use screen does not apply to any areas under consideration with the maximum coal development potential area.

NO. 12: CULTURAL RESOURCE SITES ELIGIBLE FOR INCLUSION ON THE NATIONAL REGISTER OF HISTORIC PLACES.

All properties which have been determined eligible for the National Register of Historic Places and which are of exceptional complexity, or areas of properties which must be considered together to achieve adequate mitigation through data recovery, shall be considered unacceptable. This shall include areas that the surface managing agency determines, after consultation with the SHPO and the Advisory Council on Historic Preservation, are necessary to protect the inherent values of the property that made it eligible for the National Register.

Prior to approval of surface disturbing activities, Class III inventories will be conducted and subsequent mitigation of impacts will be required on all National Register eligible sites. Consultation between BLM,

OSM, and SHPO will occur to determine if newly recorded sites are eligible for inclusion in the National Register. If adequate mitigating measures for impacts to these sites cannot be developed, the sites and appropriate buffer zones will not be surface mined or allowed to be disturbed by underground mining activities.

ANALYSIS: No individual sites of extraordinary internal complexity are presently known within the maximum coal development potential area. However, eleven areas of properties which together pose exceptional challenges to adequate mitigation are known. These total 1,340 acres unacceptable for coal mining.

EXCEPTIONS: Coal mining may be allowed if, after consultation with the SHPO and the Advisory Council on Historic Preservation, measures for mitigation of impacts are approved by the surface managing authority with jurisdiction over the site(s).

NO. 13: NATIVE AMERICAN AREAS OF CULTURAL SIGNIFICANCE

Federal lands containing specific sites which have been identified as sacred and essential to the practice of traditional Native American religion shall be considered as unacceptable. This shall also include any areas that the surface management agency determines, after consultation with the appropriate tribal representative, as necessary to protect the inherent values of the area and to ensure that the natural character of the area remains unaltered so it may continue to be used for prayer or other religious practices.

ANALYSIS: An overview of Native American traditional use of the original SACA region (Kelly in Camilli et al. n.d.) has shown that this screen may apply to sites, localities, and linear features (trails). No confirmed localities are presently known to lie in the maximum potential coal development area.