United States
Department of
Agriculture

Forest
Service

Intermountain
Region

Uinta National
Forest

Provo, Utah

UINTA NATIONAL FOREST

GARDNER CANYON GYPSUM MINE PROPOSAL

FINAL ENVIRONMENTAL IMPACT STATEMENT

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FINAL ENVIRONMENTAL IMPACT STATEMENT
FOR
GARDNER CANYON GYPSUM MINE
ON THE
UINTA NATIONAL FOREST
PROVO, UTAH

Responsible Agency:

USDA Forest Service
88 West 100 North
P.O. Box 1428
Provo, Utah 84603

Responsible Official:

Peter W. Karp
Forest Supervisor
Uinta National Forest
88 West 100 North
P.O. Box 1428
Provo, Utah 84603

For Further Information Contact:

Mark Sensibaugh
Assistant District Ranger
Spanish Fork Ranger District
44 West 400 North
Spanish Fork, Utah 84660
(801)-798-3571

Abstract: This Final Environmental Impact Statement describes alternatives, including a "No Action" alternative for the proposal to mine gypsum from the Little Doctor, Macfarlane Number 1, and Macfarlane Number 4 claims, which are located up Gardner Canyon within the Mount Nebo Wilderness area in Juab County, Utah. Alternatives range from a "No Action" or no development of the gypsum mine to development of the mineral rights as described in the proponent's submitted plan of operations. The environmental consequences of all alternatives considered in detail are displayed. The environmental impacts of the proposal and alternatives to it are disclosed in this document so that the Forest Service, other governmental bodies, landowners, and interested and affected parties may be aware of the environmental implications of the proposal. The Forest Service and other governmental bodies may use this information in their respective decision making processes or to propose mitigation to protect interests consistent with their jurisdiction.

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SUMMARY

This document summarizes the important points contained in the supplement to the Draft Environmental Impact Statement (DEIS) for a special use application for road access across National Forest System lands and the accompanying proposal to mine gypsum from existing, privately owned, outstanding mineral rights based upon the Little Doctor, Macfarlane Number 1, and Macfarlane Number 4 claims, which are located within the Mount Nebo Wilderness area in Juab County, Utah. The area encompassed by these mineral rights is hereafter referred to as "said lands." The ownership of the surface estate and the mineral estate are separate, with the United States owning the surface rights on 57 of the 59 acres.

PURPOSE AND NEED FOR ACTION

The purpose of this FEIS is to describe the proposed action, the alternatives considered, and to describe the physical, biological, social, and economic effects of these alternatives. This FEIS is not a decision document. The environmental impacts of the proposal and alternatives to it are disclosed in this document so that the Forest Service, other governmental bodies, landowners, and interested and affected parties may be aware of the environmental implications of the proposal. The Forest Service and other governmental bodies may use this information in their respective decision making processes.

The need for this analysis arises from Forest Service receipt of a special use application for road access across National Forest System wilderness lands and a proposal to mine gypsum from existing, privately owned mining rights within the Mount Nebo Wilderness. The outstanding mineral rights encompassed by said lands contain approximately 59.17 acres, with 56.98 of these acres having the surface interest held by the United States, with the minerals privately owned.

Details of the proposed action are included in Chapter II of this document. In summary, it includes a plan to access the outstanding mineral rights by way of an old existing unimproved road that runs up Gardner Canyon through National Forest System land which is designated as wilderness. The operation would construct a 12-foot road along the existing roadway to said lands to facilitate the proponent's desire to extract gypsum ore under his outstanding rights. The mine operation would be open pit with a maximum projection of 100,000 tons of ore removed annually. Significant public issues are involved because the proposed access route and said lands are located within wilderness and the proposal would impact as many as 70 acres.

PUBLIC ISSUES, MANAGEMENT CONCERNS AND OPPORTUNITIES

The public involvement effort generated a wide variety of issues. Below is a brief discussion of some of the more significant issues related to this proposal:

1. Concern that the physical and biological environment that make up the wilderness resource, as designated by Public Law 98-428, will be affected. Concern that these effects will significantly impact the wilderness characteristics that presently exist, causing permanent degradation to the resource.

2. Concern for the affect this operation could have on the local wildlife populations and habitat, specifically impacts to big game winter range.

3. Concern over the effect this operation could have on water quality and quantity of the existing water rights which are claimed in Gardner Canyon. The Gardner Canyon Irrigation Company maintains a water collection facility within the bounds of the said lands at the base of the area proposed for operation.

4. Concern for the proponent's valid outstanding rights under the 1872 Mining Law. Mr. Steele owns the mineral rights on the subject lands. Based on a deed, he has both a right to mine and a right to ingress and egress.

5. Concern for surface resource protection. This considers the effects of the ongoing operation and adequate and timely reclamation.

6. Opportunity to provide jobs and mineral material that will affect the local economy of the area.

ALTERNATIVES, INCLUDING THE PROPOSED ACTION

1. *ALTERNATIVES ELIMINATED FROM DETAILED STUDY*

   The following alternatives were considered, but eliminated from further study. Descriptions of these alternatives are in Chapter II.

   - Implementation of Federal mining regulations (36 CFR 223).
   - Declassification of the affected area (removal of wilderness designation).
   - Primitive mining and transport.
   - Underground mining.
   - Non-Federal Land Access (exclusively)

In one case, the alternative was dismissed from detailed consideration because the Forest Service lacks the authority to implement it's terms. Only Congress has the power to "declassify" the wilderness around the proposed project area.

2. *OPPORTUNITIES CONSIDERED WHICH ARE SEPARATE FROM THE ACCESS ANALYSIS AND DECISION*

Opportunities for federal acquisition of the mineral estate were considered. The opportunities are: federal purchase, private acquisition with donation to the Federal Government, or a federal land exchange. These opportunities were displayed, but considered to be separate from the access request analysis. The opportunities for federal acquisition can be pursued at any time. Descriptions of these opportunities are discussed in Chapter II.

3. *ALTERNATIVES CONSIDERED IN DETAIL*

Alternative A - No Action

The No Action Alternative is defined as no development of access and mining operation. Under this alternative, the Forest Service would deny Mr. Steele's special use permit request and accompanying operating and development plan for his gypsum mine proposal on the Uinta National Forest.

Mr. Steele has private ownership of the mineral estate. As such, he has the right, subject to the terms of his deed and State Law, to pursue and develop his mineral resource. The Forest Service cannot prevent him from mining. A decision to preclude mining would require an Act of Congress.

The National Environmental Policy Act (NEPA) procedural regulations require the Forest Service to study the No Action Alternative in detail and use it as a baseline for comparing the effects of all other alternatives, (CFR 1502.14[d]), and Forest Service Handbook 1909.15, 23.1). The No Action Alternative is used in this analysis for comparative purposes.

Alternative B

The proposed Plan of Operations would require access for mining equipment and ore transportation through Gardner Canyon along the existing unimproved road (see figure 3). A special use application under this alternative was submitted, along with a justifying Plan of Operation (Appendix A). The gypsum deposits within said lands (the confines of the Macfarlane No. 1 and No. 4 and the Little Doctor patented claims) would be developed using an open-pit mining method. A special use permit for road improvements and surface use would be issued by the Forest Service. The permit would authorize construction of a gravelled 12-foot wide travelway with turnouts along the existing road alignment. Road drainage would be accomplished by using rolling dips, installing one 16-foot culvert, and insloping/outsloping of the roadbed. Two turnouts would be constructed. Use of the road would be limited to the mining activities. The permit would specify construction standards, use periods, maintenance requirements, and reclamation procedures upon termination of use. The permit would also authorize work access roads to reach ore at the top of the ridge within said lands. These roads would be constructed on a grade greater than 10%, would be 12-foot wide, and have adequate drainage. With the exception of access roads, all mining activity would be confined within the limits of the proponent's mineral rights.

In addition, Mr. Steele would be required to obtain all necessary permits or clearances from The State of Utah, Department of Health for Air Quality; the U.S. Army Corps of Engi-

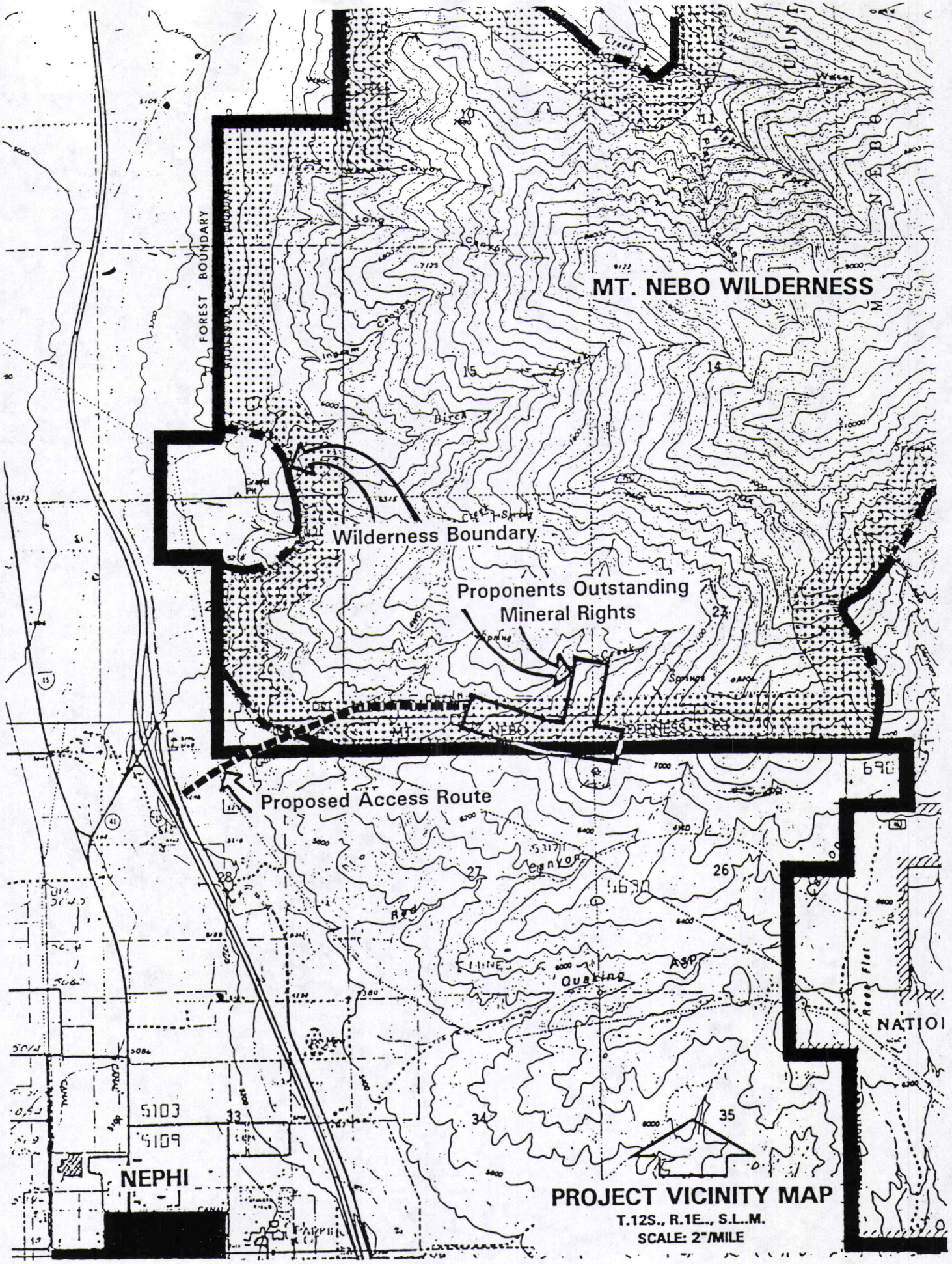

MT. NEBO WILDERNESS
FOREST BOUNDARY
Wilderness Boundary
Proponents Outstanding
Mineral Rights
Proposed Access Route
NEPHI
PROJECT VICINITY MAP
T.12S., R.1E., S.L.M.
SCALE: 2"/MILE

FIGURE 3

neers for activities affecting wetlands or waterways; Mine Safety and Health Administration (MSHA); and U.S. Department of Labor for necessary safety and road use agreements with State or County jurisdiction. A mine permit from the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, would also need to be secured.

The Forest Service would issue a special use permit for all surface-disturbing activities outside of the mineral rights. This would include reconstruction on one mile of the existing access road up Gardner Canyon, one-half mile of access road associated with the mine operation, and any surface disturbance done in conjunction with the proposed project. This special use permit will address construction and maintenance standards, reclamation requirements, and a reclamation surety provision. A special use permit would not be issued until the appropriate permits for mining have been secured from the State. The Forest Service would work with the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, and the proponent, to develop an agreement of what mitigation measures would be incorporated into the Plan of Operations and Reclamation Plan.

ALTERNATIVE C

This alternative would develop a basically non-wilderness access route to said lands. The main access road would be outside of National Forest System land (wilderness) to the south of said lands (see Figure 4) with the exception of about 200 feet which would be within designated wilderness. This would require construction of an access road from the ridge above Gardner Canyon down to County roads which access Red Canyon. The exact location of this road has not yet been determined but an estimated 2.25 miles of new road construction would be required, at an estimated cost of $45,000 per mile. Approximately one-half mile of secondary access road, to reach various points of operation on subject lands (allowing full utilization of property), would be constructed on National Forest System lands. Right-of-way would have to be acquired, based on the terms of the deed, across private and Utah State Division of Wildlife Resources lands. The latter lands were purchased with Federal aid and wildlife restoration funds for high priority value big game winter range.

The mining method would be at the proponent's discretion, permitted by the State, and could vary from year to year, but all ore would be hauled from the said lands over the proposed road.

The life of the project, as in Alternative B, would depend on the amount of gypsum present and the economics of mining the deposit.

The secondary road construction and operation which would occur on National Forest System lands would be permitted with a special use permit, as described in Alternative B, except no access would be permitted up the bottom of Gardner Canyon. Only that access needed to realize full use of the property right would be permitted.

As with Alternative B, the Forest Service would work with the State and Mr. Steele to develop an agreement of what mitigation measures would be incorporated into the Plan of Operations and Reclamation Plan. The environmental protection measures identified in Alternative B would also be incorporated into this alternative. Additional mitigation measure(s) to protect the City of Nephi's water source at Rowley Spring would be included.

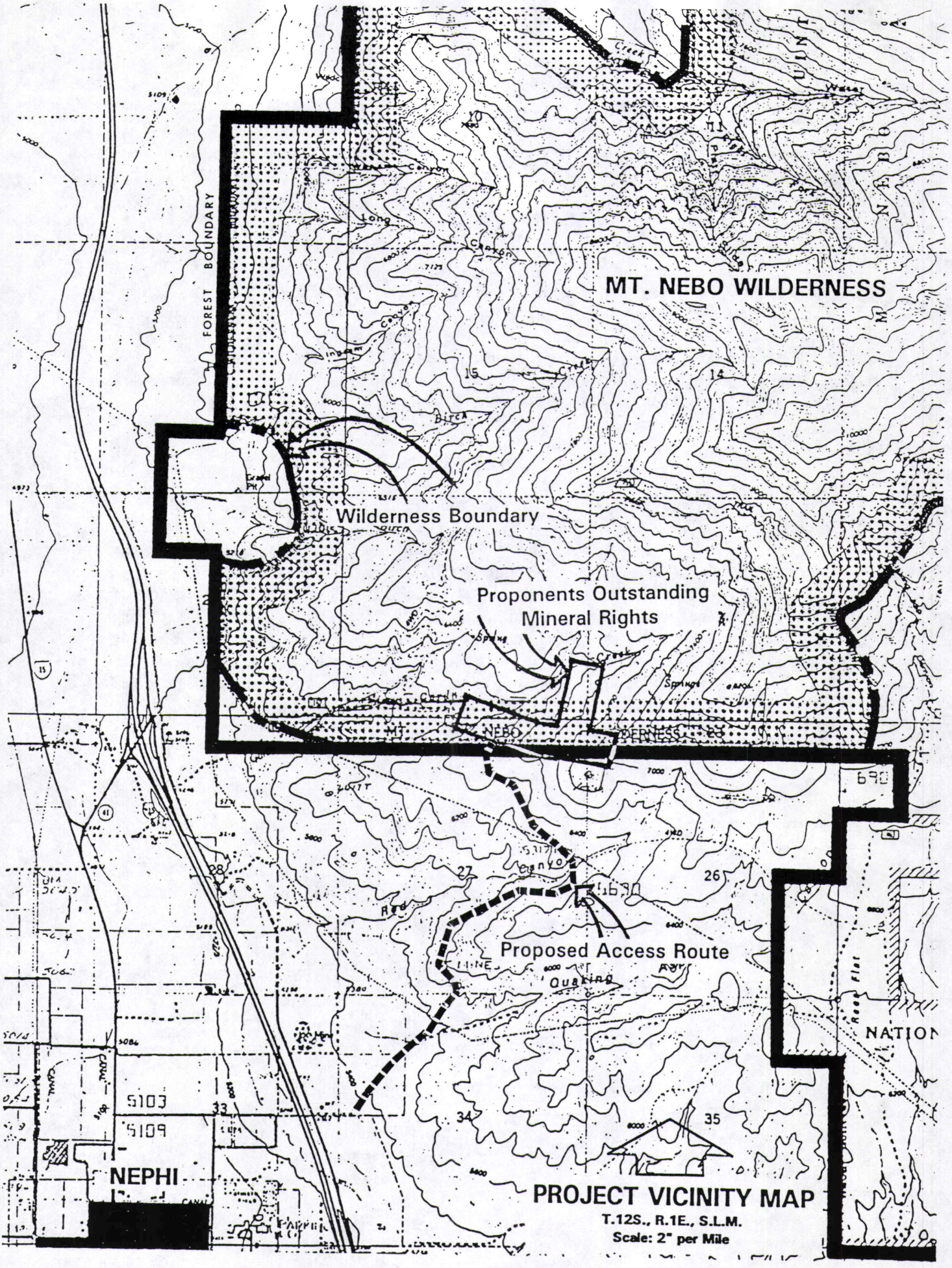

MT. NEBO WILDERNESS
Wilderness Boundary
Proponents Outstanding
Mineral Rights
Proposed Access Route
NEPHI
FOREST BOUNDARY
PROJECT VICINITY MAP
T.12S., R.1E., S.L.M.
Scale: 2" per Mile

FIGURE 4

The major difference between this alternative and Alternative B is the construction of access outside of wilderness, more up-front road construction, and a different point of origin for initial mining development. The surface disturbance over the life of the mine within the claimed area and the amount of mineral removed would not vary between alternatives.

AFFECTED ENVIRONMENT

1. *PHYSICAL ENVIRONMENT*

Important characteristics of the physical environment include some wetlands in Gardner Canyon, steep terrain with unstable slopes, and difficult to revegetate soils. Water developments in the form of a catch basin, cement filter tanks, and buried pipeline are present within the boundaries of the claim. As a designated wilderness, the Mount Nebo Wilderness is classified as a wilderness resource. The visual quality spectrum for this area is a "preservation" management objective.

2. *BIOLOGICAL ENVIRONMENT*

Gardner Canyon and the area within the bounds of the outstanding mineral rights contain habitat which is utilized: (1) As winter range by big game animals, (2) by numerous medium and small size mammals, rodents and reptiles, (3) as transitory range for a variety of birds. No habitat for threatened, endangered, or sensitive species is known to occur in the area. The water in Gardner Canyon does not support any fisheries. The vegetation is typical of Pinyon-Juniper, sagebrush, and oakbrush habitats found in the West. No threatened or endangered plants are known to occur in the area.

3. *SOCIO-ECONOMIC ENVIRONMENT*

The area of the proposed operation currently provides little contribution to the economic base of the County. The water resource of Gardner Canyon contributes to the development of agriculture in the valley. The scenic backdrop of Mount Nebo adds to the aesthetic value of the area and the town of Nephi. The primary use of the area occurs during hunting season, with some economic benefits affecting the town.

The exact quantity of gypsum present is not known. In a U.S. Geological Survey, M. L. Sorensen estimated that about 270,000 tons of gypsum appear to be present. Mr. Steele asserts that there is considerably more than that. The value of gypsum varies with the grade (purity). Production rates for any mining operation would be dictated by market demands, which can vary widely depending on the national or local economy. The value of gypsum would be entirely dependent upon the demand, balanced against operating costs.

The operation Mr. Steele proposes would employ 2-3 persons and could produce as much as 100 tons per day. In addition to the mine employees, several other people could be employed in the transportation of the ore to a processing facility. An economic evaluation has not been done on this mine and the direct effect on the community would vary with the production of the mine and the amount of ore present that could be economically extracted. The maximum projected production is 100,000 tons annually. This would require a larger operation which would employ considerably more people.

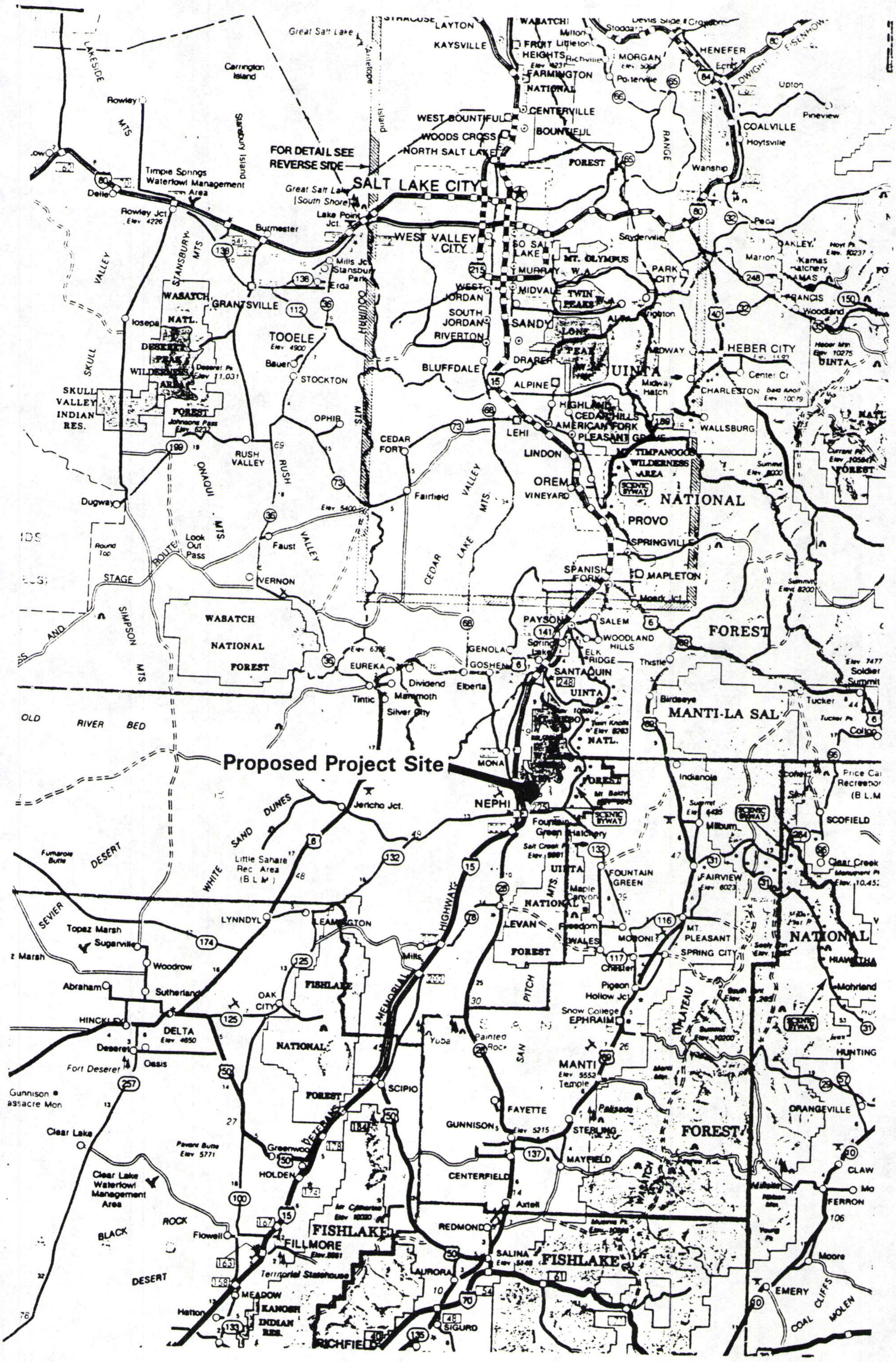
4. *CULTURAL RESOURCES*

In the summer of 1990, the area under consideration for disturbance was archaeologically inventoried to document the presence of important cultural resources. The results of this survey showed that no cultural resources were located in the project area. The Utah State Historical Preservation Office concurs with the findings of this report.

ENVIRONMENTAL CONSEQUENCES

Chapter IV includes a detailed description of the estimated environmental effects associated with Alternatives A, B and C. In summary, the analysis projects some substantial effects for both Alternatives B and C in the area of impacts to the wilderness characteristics, soil stability, visual quality, water quality and erosion along the side of Gardner Canyon. In addition, most of the impacts will be long term with some impacts being irreversible. All action alternatives will result in an irretrievable commitment of resource (gypsum). There could be some impacts to the wetlands within Gardner Canyon.

Vicinity Map



CHAPTER 1 - PURPOSE AND NEED FOR ACTION

PURPOSE AND NEED

Proposed Action

This Final Environmental Impact Statement (FEIS) describes and evaluates the impacts of issuing a special use permit granting access to privately owned mineral rights (hereafter referred to as subject lands) within the Mount Nebo Wilderness. The Forest Service proposes to issue a special use permit to Robert Steele to construct a gravelled 12-foot wide travelway with turnouts across National Forest System lands from the Forest boundary to the subject lands as shown on the attached map (Figure A). Details of the proposed action are included in Chapter II of this document. In summary, the proponent proposes to access the subject lands by way of an existing unimproved road that runs up Gardner Canyon through National Forest System land designated as wilderness. The existing road would be upgraded to accommodate hauling and heavy mining equipment. The proposed operation would be an open pit mine with an estimated 15,000 - 100,000 tons of ore removed annually. Significant public issues are involved because the proposed access route and the area to be mined are located within wilderness and the proposal could impact as many as 70 acres.

Underlying Need for Proposed Action

The need for this analysis was initiated by Forest Service receipt of a special use application for road access across National Forest System wilderness lands and a proposal to mine gypsum from existing, privately owned, patented mineral interests within the Mount Nebo Wilderness. The subject lands are an outstanding mineral right, whereby the approximately 59.17 acre mineral interest is privately owned and 56.98 acres of the surface interest is held by the United States Government and managed by the Forest Service (2.19 acres are outside National Forest boundary).

The analysis assesses the connected impacts of surface disturbance to the subject lands and describes the mitigation measures which, through cooperation with the proponent and the State of Utah, could be implemented to lessen adverse environmental impacts. The environmental impacts of the proposal and alternatives to it are disclosed in this document so that the Forest Service, other governmental bodies, landowners and interested and affected parties may be aware of the environmental implications of the proposal. The Forest Service and other governmental bodies may use this information in their respective decision making processes or to propose mitigation to protect interests consistent with their jurisdictions.

Some have questioned the applicability of the National Environmental Policy Act (NEPA) because the proponent has an established ownership right to the minerals. The Forest Service is using NEPA in order to evaluate the environmental impacts of the proponent's request to access the subject lands through National Forest System land, which would require issuance of a special use permit. In addition, because of intense public scrutiny of this proposal, the Forest Service intends to use this analysis to assess whether the proponent's use of the surface of the subject lands would be reasonable and to propose mitigation measures to lessen adverse environmental impacts.

PROJECT SCOPE

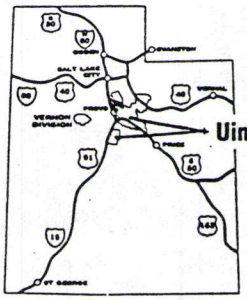
The area involved in this analysis includes the proposed access routes and portions of the subject land located on National Forest System land. The lands are located in Sections 22, 23, 26, and 27, T. 12 S., R.1 E., Salt Lake Meridian. The subject lands were originally mining claims, which are described in a Patent dated July 22, 1926, recorded in book 103, page 99, of the records of Juab County, Utah. The area is shown in Figure A.

INTRODUCTION

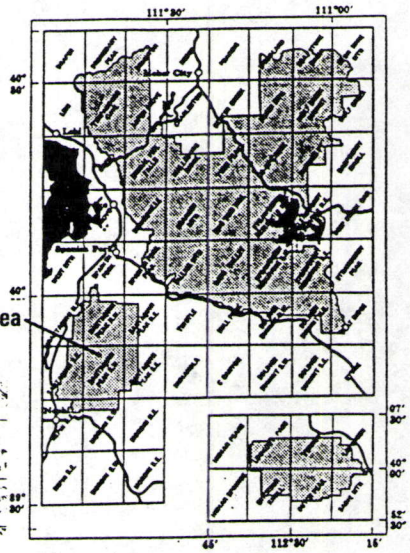
The Gardner Canyon Gypsum Mine Proposal embraces two critical themes – private property rights and wilderness protection – within a complex web of Federal and State law and strong public opinion. In this case, Mr. Robert Steele owns the mineral rights and the United States government owns the surface – a situation called an outstanding mineral right. The complexity of the situation is increased by the fact that the proponent's proposed access route and the surface of the subject lands lie within a Congressionally designated wilderness area – the Mount Nebo Wilderness. Many consider mining to be at odds with environmental protection, and entirely inconsistent with the whole concept of wilderness. The challenge of the Forest Service is to respect Mr. Steele's private property rights by responding to his request for access and proposal to mine, while protecting the surface resource to the fullest extent possible under Federal law.

The Forest Service has the responsibility to protect surface resources. Privately held mineral rights are administered under State law, in this case by the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining. Under both Common and State Law, the Forest Service's legal interest in the surface property is protected from unreasonable, careless, or negligent use. The Forest Service will enter into negotiations with the proponent to reduce potential adverse impacts and make agreed-upon conditions legally enforceable as a binding contract. The Forest Service will develop and implement mitigation and reclamation measures through cooperation and negotiation with the State of Utah and Mr. Steele to address the environmental impacts of the mining operation.

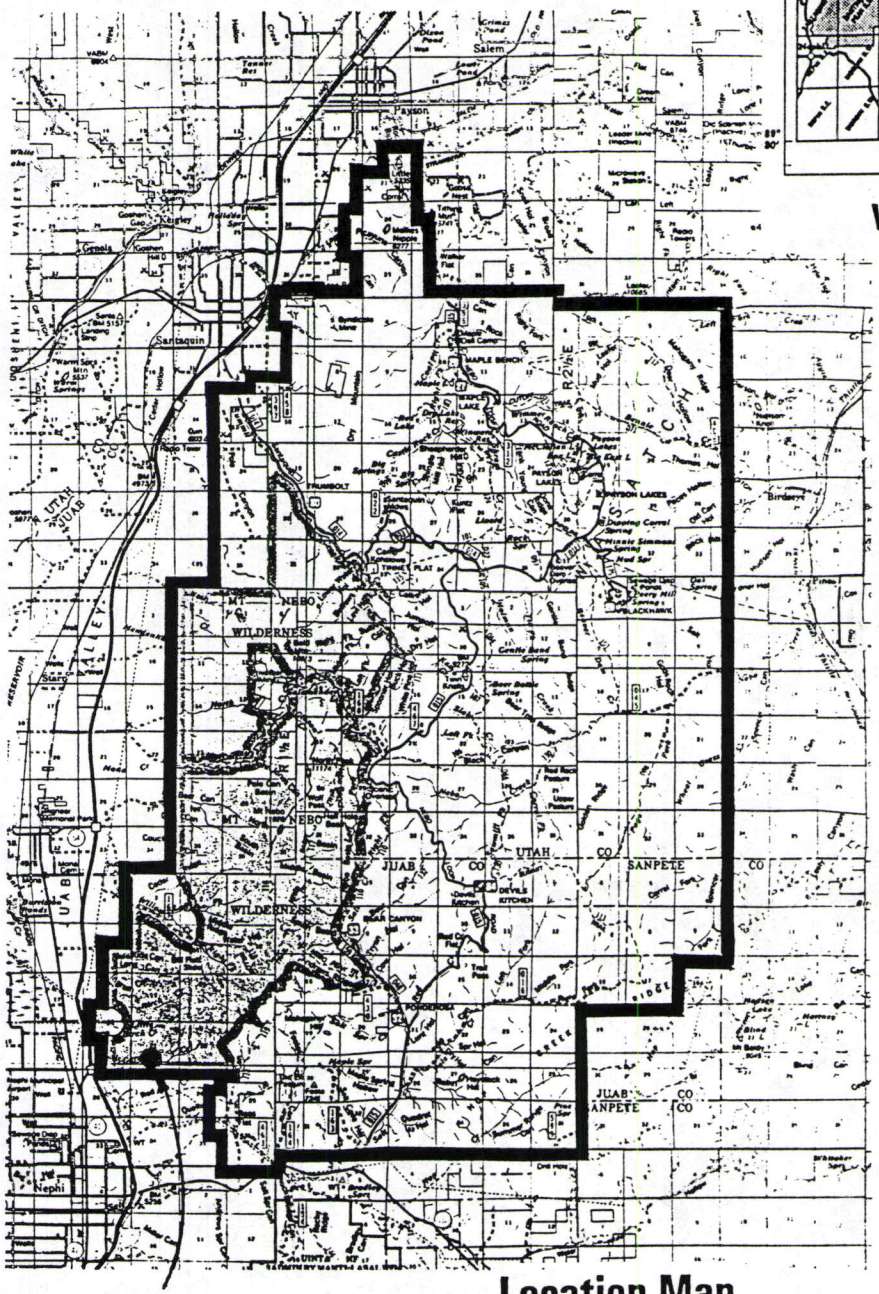
Because of the complexity of this proposal, additional information about the history of the proposal, the authorities and statutes relating to the proposed action, and the analysis to be made are provided to help interested parties gain a more thorough understanding.



Forest Vicinity Map



Vicinity Map



Proposed Project Site

Location Map

FIGURE A

HISTORY

FIGURE 1. OWNERSHIP HISTORY OF SUBJECT LANDS.

DATE	*SURFACE OWNERSHIP*	*MINERAL RIGHTS OWNERSHIP*	*DESCRIPTION*
1926	U.S. Gypsum Co.	U.S. Gypsum Co.	Patented
1952	Eugene Allred	U.S. Gypsum Co.	Split Estate w/ Reserved Mineral Right
1965	U.S. Government (Natl Forest Syst lands)	U.S. Gypsum Co.	Split Estate w/ Outstanding Mineral Right
1973	U.S. Government (Natl Forest Syst lands)	Robert L. Steele	Split Estate w/ Outstanding Mineral Right
1984	Wilderness designation of U.S. Govt. land (Natl Forest Syst lands)	Robert L. Steele	Split Estate w/ Outstanding Mineral Right

The Macfarlane Number 1, Macfarlane Number 4, and Little Doctor lode mining claims were patented July 22, 1926 by United States Gypsum Company. On August 27, 1952, Mr. Eugene Allred acquired the surface rights. On October 18, 1965, the United States Government acquired the surface rights from Mr. Allred. On September 24, 1973, Mr. Robert L. Steele acquired the mineral rights originating from these patented claims from United States Gypsum Company. On September 28, 1984, Public Law 98-428 designated the National Forest lands associated with these outstanding mineral rights for inclusion in the National Wilderness Preservation System.

The area where the subject lands are located has a history of mining activity dating back to the early 1900's. Prior to wilderness designation, a series of claims was established around the said lands and exploration work was conducted. This work included the construction of access roads, digging of test holes, and some exploratory drilling. The presence of past mining activity and existing claims deferred this area from inclusion in roadless area designation, and early proposals for the Mount Nebo Wilderness. Final determination of the Mount Nebo Wilderness boundary coincided with the existing National Forest boundary, thus including the subject lands and other claims in the area.

No known significant work occurred on the outstanding rights prior to 1968. Between 1968 and 1984, prior to wilderness designation, approximately 3/4 mile of the access road was developed from the existing road in Gardner Canyon, up the ridge to the top of the deposit. No major quantities of gypsum have been removed from these lands. One adit and several test holes have been dug into the ore body. On or about July 10, 1990, an unauthorized entry was made on the mineral estate and approximately 2 acres of surface disturbance occurred. No gypsum was removed and the operation was discontinued pending completion of this document.

In August of 1989, Mr. Steele filed for a special use permit to operate motorized equipment (bulldozer and dump trucks) on the patented mineral interest as well as other nearby mining claims within the Mount Nebo Wilderness. Because the request included the unpatented mining claims where the determination of valid existing rights was an issue, a validity examination was scheduled and action on the special use permit was postponed. Validity determination was completed by the Forest Service in 1991. The results were sent to the Bureau of Land Management who then issued a notice contesting the validity of the unpatented mineral rights to Mr. Steele.

On June 27, 1990, Mr. Steele filed for a new special use permit to construct an access road along the route of the existing jeep trail which runs up Gardner Canyon. The purpose of the road was to access the "patented" mining claims (Macfarlane 1 and 4 and Little Doctor).

The results of public involvement and preliminary analysis (documented in an Environmental Assessment) indicated that this was a significant proposed action. On November 23, 1990, a Notice of Intent to Prepare an Environmental Impact Statement was published in the Federal Register. This initiated the formal public involvement process. On December 19, 1990, a public scoping session was held in Provo, Utah. A Draft Environmental Impact Statement was filed March 17, 1992. In February of 1993, the Environmental Impact Statement process was stopped, per agreement with the proponent, to allow the Forest Service to pursue the feasibility of a land exchange. In January of 1994 a land exchange was deemed unworkable and the Environmental Impact Statement process was resumed. A suppplement to the Draft EIS was released due to the time that had lapsed to disclose details of the land exchange and to update the analysis based on comments received.

AUTHORITIES AND STATUTES RELATING TO THE PROPOSED ACTION

The following information is taken from various authorities and statutes, and regulates the analysis and process of the requested special use permit. For more detailed information, see complete acts, regulations, etc. on file in the planning records.

1.Federal Authorities

a. **The Wilderness Act - P.L. 88-577.1964.**

Section 1(c) - "A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable..."

Section 4(c) - "Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act...there shall be no temporary road, no use of motor vehicles, motorized equipment or motor boats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area."

Section 5(a) - "In any case where State-owned or privately owned land is completely surrounded by National Forest System lands with areas designated by this Act as wilderness, such State or private owner shall be given such rights as may be necessary to assure adequate access to such State-owned or privately owned land by such State or private owner and their successors in interest..."

Section 5(b) - "In any case where valid mining claims or other valid occupancies are wholly within a designated National Forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consistent with the preservation of the area of wilderness, permit ingress and egress to such surrounded areas by means which have been or are being customarily enjoyed with respect to other such areas similarly situated."

Section 5(c) - "Subject to appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this Act as wilderness if (1) the owner concurs in such acquisition or (2) the acquisition is specifically authorized by Congress."

b. **Utah Wilderness Act - P.L. 98-428.1984.**

Section 101(b) - "The purposes of this Act are to (1) designate certain national forest system lands in Utah as components of the National Wilderness Preservation System..."

Section 102(a) - "In furtherance of the purpose of the Wilderness Act (78 Stat. 890), the following National Forest System lands in the State of Utah are hereby designated as wilderness, and therefore, as components of the National Wilderness Preservation System...(7)certain lands in the Uinta National Forest which comprise approximately twenty-eight thousand acres as generally depicted on a map entitled "Mt. Nebo Wilderness–Proposed", dated June 1984, and which shall be known as the Mount Nebo Wilderness."

Section 103(a) - "Subject to valid existing rights, each wilderness area designated by this Act shall be administered by the Secretary of Agriculture in accordance with provisions of the Wilderness Act of 1964 (78 Stat. 892)..."

c. **Code of Federal Regulations (CFR) Section 36, Part 251.**

Part 251.53 "Special-use authorizations may be issued for: (i) Permits under the Wilderness Act...for temporary structures and commercial services and for access to valid mining claims or other valid occupancies and to surrounded State or private land within designated wilderness."

(d) Access to non-federal lands

"Subject to the terms and conditions contained in this part and in parts 212 and 293 of this chapter, as appropriate, landowners (property owners) shall be authorized such access as the authorized officer deems to be adequate to secure them the reasonable use and enjoyment of their land."

Part 251.112 covers application requirements.

Part 251.114(a) "In issuing a special-use authorization for access ... the authorized officer shall authorize only ... modes of access ... that minimize impacts on the Federal resources."

Part 251.114(f) (1-3)

(f)"In addition to ensuring that applicable terms and conditions of paragraphs (a) through (e) of this section are met, the authorizing officer, prior to issuing any access authorization, must also ensure that:

(1)The landowner has demonstrated a lack of any existing rights or routes of access available by deed or under State or common law;

(2)The route is so located and constructed as to minimize adverse impacts on soils, fish and wildlife, scenic, cultural, threatened and endangered species, and other values of the Federal land;

(3)The location and method of access is as consistent as reasonably possible with the management of any congressionally designated area and is consistent with Forest Land and Resource Management Plans, or the plans are amended to accommodate the access grant, ..."

Part 251.114(g) (1-3)

(g) In addition to the other requirements of this section, the following factors shall be considered in authorizing access to non-federally owned lands over National Forest System lands which are components of the National Wilderness Preservation Systems;

(1) The use of means of ingress and egress which have been or are being customarily used with respect to similarly situated non-federal land used for similar purposes;

(2) The combination of routes and modes of travel, including non-motorized modes, which will cause the least lasting impact on the wilderness but, at the same time, will permit the reasonable use of the non-federally owned land;

(3) The examination of a voluntary acquisition of land or interests in land by exchange, purchase, or donation to modify or eliminate the need to use wilderness areas for access purposes.

d. **Code of Federal Regulations (CFR) Section 36, Part 293.13.**

"Persons with valid occupancies wholly within National Forest Wilderness shall be permitted access to such surrounded occupancies by means consistent with the preservation of National Forest Wilderness which have been or are being customarily used with respect to other such occupancies surrounded by National Forest Wilderness. The Forest Service will, when appropriate, issue permits which shall prescribe the routes of travel to and from the surrounded occupancies, the mode of travel, and other conditions reasonably necessary to preserve the National Forest Wilderness."

e. **Forest Service Manual 2323 and 2832.**

This is manual direction for operations associated with outstanding rights.

"*2323.75c - Mineral Reservation or Outstanding Mineral Right.* Consistent with the valid existing rights, review and approve operating plans that incorporate reasonable terms and conditions for the protection of the wilderness character of the area, and that provide for restoration as near as praticable of the disturbed lands promptly upon abadonment of operations (FSM 2830)."

"*2832.1 - Review of Operating Plans.* The Forest Supervisor must review the operating plan to determine whether or not it:

1. Uses only so much of the surface as is prudently necessary for the proposed operations.

2. Is consistent with the rights granted by deed.

3. Is consistent with the forest land and resource management plan."

"*2832.2 - Negotiation of an Acceptable Operating Plan.* If an operating plan does not meet the three criteria in sec. 2832.1, the Forest Supervisor shall meet with the owner or lessee to negotiate modifications needed to make the plan acceptable. If negotiations are unsuccessful, the Forest Supervisor shall consult with the Regional Forester and the Office of the General Counsel before advising the owner or lessee, by registered letter, of the unacceptable portions of the plan and stating that implementation of these parts of the plan may require appropriate legal action..."

f. Alaska National Interest Lands Conservation Act. (ANILCA) (16 U.S.C. 3210)

ANILCA provides a statutory entitlement for access to landowners where legal access is determined to exist as reserved or outstanding rights.

The entitlement is not without qualification. The access is that "as the secretary deems adequate to secure the owner the reasonable use and enjoyment of the land." Therefore, the kind of access granted is a discretionary decision of the authorized officer based upon given circumstances. The term "reasonable use" is a relative term that must be considered on a case by case basis.

The agency will work with land owners or owners of reserved or outstanding rights to assure that their access needs are given appropriate consideration, along with the protection of the National Forest System lands to be crossed.

Where legal access is known to exist, and is specified as a reserved or outstanding right, landowners may exercise such rights. In this case, the proponent has a right to ingress through his deed, but the exact location and terms of the access are not described in the deed.

2. State Authorities.

a. State law specifies that the "ownership of mineral rights in land is dominant over the rights of the owner of the fee to the extent reasonably necessary to extract the minerals therefrom." This dominance is limited in that the mineral owner may exercise that right only as reasonably necessary for that purpose, and consistent with allowing the fee owner the greatest possible use of his property consistent therewith. Such a conflict of interest was dealt with in the case of Getty Oil Company v. Jones. Therein, the court acknowledged the right of the lessee to extract oil notwithstanding surface damage, but also pointed out that where there is a reasonable and practical alternative which could be pursued to minimize damages to the fee holder, that should be done. We subscribe to the foregoing as in harmony with the principle which we think is sound: that wherever there exists separate ownerships of interest in the same land, each should have the right to the use and enjoyment of his interest in the property to the highest degree possible not inconsistent with the

rights of the other. We do not mean to be understood as saying that such a lessee must use any possible alternative. But he is obliged to pursue one which is reasonable and practical under the circumstances.

b. The Utah Code, Section 40, on mines and mining, in Chapter 8; Mined Land Reclamation defines reclamation under State law (Sec. 40-8-4.(14), and outlines the objectives for reclamation (Sec. 40-8-12).

40-8-4(14) "Reclamation means actions performed during or after mining operations to shape, stabilize, revegetate, or otherwise treat the land affected in order to achieve a safe, stable, ecological condition and use which will be consistent with local environmental conditions."

"40-8-12. Objectives. The objectives of mined land reclamation are:

(1) to return the land, concurrently with mining or within a reasonable amount of time thereafter, to a stable ecological condition compatible with past, present, and probable future local land uses;

(2) to minimize or prevent present and future on-site or off-site environmental degradation caused by mining operations to the ecologic and hydrologic regimes and to meet other pertinent state and federal regulations regarding air and water quality standards and health and safety criteria, and

(3) to minimize or prevent future hazards to public safety and welfare."

3. Mineral Rights

The mining law of May 10, 1872, as amended and supplemented allows for acquiring a mineral patent. The requirements for patenting a mining claim are given in detail in 43 CFR Part 3860. A patented mineral interest is one in which the Federal Government has conveyed fee title for the property title to the claimant. This gives the claimant full title to the locatable minerals, the surface and all resources. Here, as mentioned, subsequent conveyances separated the surface and mineral estates.

THE DECISION TO BE MADE - WHAT THE EIS CAN AND CANNOT DO

The chart in figure 2 shows the framework for the analysis. There are three major components of the analysis: (1) legal rights; (2) access decisions; and (3) mine operation decisions.

(1) Legal rights. This is a proprietary decision. Title to the minerals was awarded in 1926 when the claims were patented.

(2) Access decisions. The agency does have decision authority regarding access. The Forest Service issues special use permits for the development and use of access across National Forest System lands, in accordance with section 1323(a) of the Alaska National Interest Lands Conservation Act (ANILCA), and the implementing regulations set forth at 36 C.F.R. Part 251, Subpart D. Prior to issuing a permit when required under the regulations, an environmental analysis and a decision document must be written as directed by NEPA. This EIS looks at what alternative, if any, will be selected to access the subject lands encompassed by the outstanding mineral rights.

(3) Mine operation decisions. The agency has a responsibility to assure that the mineral owner uses only that portion of the federal surface and resources necessary to extract his mineral. To achieve this goal, the mineral owner submits a proposed plan of operations which the Forest Service reviews and then identifies proposed mitigation and reclamation measures to promote the federal interest. The Forest Service lacks the authority to prevent the mining operation from proceeding. Its authority is limited to preventing unnecessary use of the federal surface and resources. The proposed mitigation and reclamation measures are then discussed with the mineral owner to ensure that they do not prevent the operation of the mine. Once the two parties agree on the measures, or if the two parties do not agree but the Forest Service has concluded that the measures are needed to promote the Federal interest and do not prevent the operation from proceeding, the measures become binding and enforceable conditions of operation. These conditions are incorporated into a letter of authorization which is issued before the operation may proceed. Once the letter of authorization is issued, and the mineral owner obtains the required state permits, the Forest Service would issue a special use permit for access if access is to be provided across federal lands.

(4) Purchase/Exchange. A decision to proceed with a buy out or trade option can occur at any time. The decisions associated with this option are separate from the decisions associated with a request for access so the proponent can develop his mineral rights.

The decisions to be made follow the path shown in the chart.

FIGURE 2. Decision Process.

RIGHTS	MINE - Proprietary Decision | v	PURCHASE/EXCHANGE ^ |
ACCESS	FS Decision re. How Access --> Alts. A,B,C Documented by EIS | v	| | Can | | Occur |
MINE OPERATION	FS Proposals re. Mitigation and Reclamation documented by EIS | v	| | At | | Any |
	Forest Service negotiation with proponent. Forest Service involvement with State of Utah re. surface protection/reclamation. | v	| Time | | | During |
	Issuance of State permit for mining to proponent required by State law | v	| | | |
	Obtain State permit, then issuance of FS special use permit for access | v	| v
	Mining operation could commence	

The process which has led to developing this Environmental Impact Statement began when Mr. Robert Steele submitted a special use application for road access to his outstanding mineral rights within the Mount Nebo Wilderness, as authorized under ANILCA. In the instant situation where an individual has a private property right within the Forest Service boundary lying beneath a wilderness area, the Forest Service issues a permit prescribing the route, mode of travel, and other conditions necessary to protect surface resource values generally, and wilderness values in particular (see Section on Authorities 1.d re. Code of Federal Regulations Title 36, Part 251,Subpart D; and, Part 293).

Therefore, the primary objective of this EIS is to describe and evaluate the impacts of issuing a special use permit to Mr. Steele for access to his outstanding mineral rights.

The mining operation itself is a significant connected (or related) action to the access decision of the Forest Service. As the manager of the surface estate of the subject lands, the Forest Service has the right to negotiate with Mr. Steele binding mitigation and reclamation measures to be incorporated

into a letter of authorization issued by the agency before the mining operation may proceed. Where the negotiations fail to result in agreement, the agency has authority to legally pursue inclusion of reasonable measures into the letter of authorization. Because Mr. Steele's mining claim is privately owned, his operation would be regulated by the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining. Although the Forest Service cannot mandate any decisions about how the mining operation will be managed, reclaimed, or mitigated, reclamation and mitigation objectives can be developed and carried forward into negotiations with Mr. Steele and the State. Therefore, this FEIS describes the Forest Service's basic reclamation and mitigation proposals.

In summary, the decision to be made based on this document relates to access of Mr. Steele's mineral rights. At this juncture, the Forest Service can only develop proposals with regard to the connected impacts of the mine itself and display the impacts of a worst case mine operation scenario and the effect of the Forest Service mitigation and reclamation proposals. Because of the complexity of the situation, additional explanation follows.

What Forest Service authority is available to regulate this operation?

Forest Service authority to enforce Federal law is usually provided through regulations promulgated by the Secretary of Agriculture. Federal regulations are published in a document called the Code of Federal Regulations (CFR's). That portion of the Code of Federal Regulations that pertains to management of National Forest System lands is titled "36 CFR." Three sections of 36 CFR are applicable to this situation:

36 CFR 228 - Minerals,
36 CFR 251 - Land Uses,
36 CFR 293 - Wilderness and Primitive Areas.

Federal regulations governing most mining operations on National Forest System lands are specified in CFR 228 - Minerals. However, the preamble to Section 228 states that these regulations apply to "operations hereafter conducted under the United States mining laws of May 10, 1872, as amended (30 U.S.C. 22 et seq.)..." The 1872 Mining Law and its amendments apply only to Federal lands open to mineral location and entry. The Gardner Canyon subject lands contain private minerals originating from patented land and a Federally acquired surface. By definition, these lands are not open to mineral location and entry under the General Mining Laws. This is reiterated in Forest Service Manual (FSM 2830.10), "The Secretary's rules and regulations do not apply to the administration of outstanding mineral rights." There are no Federal mining regulations available to the Forest Service in administering the exercise of outstanding private rights.

The same caution applies to Forest Service authority to apply land (special) use regulations to the outstanding rights. A special use permit is required, however for access to the subject lands in this case. Under the Code of Federal Regulations, authority for issuing special use permits for uses of National Forest System lands outlined in 36 CFR 251.53(i) specifically describes authority for issuing access to valid occupancies within designated wilderness.

Some sections of the wilderness regulations (36 CFR 293) do apply to this EIS. 36 CFR 293.2 and 293.3 provide general instructions for wilderness protection and management "to the extent not limited by the Wilderness Act (or) the subsequent legislation establishing a particular unit..." As related previously, section 4(c) of the Wilderness Act protects the private rights which were in effect prior to wilderness designation. Sections 36 CFR 293.12 and 293.13 enable authorization of access

to private lands and valid occupancies. Section 293.13 states, "persons with valid occupancies wholly within the National Forest wilderness shall be permitted access... by means consistent with the preservation of National Forest wilderness." It further states that the Forest Service will, when appropriate, issue permits for such access.

Forest Service authority to regulate the surface impacts of outstanding mining operations stems from the Property Clause of the U.S. Constitution, federal statutes, regulations promulgated by the agency, and the Forest Service Manual. Federal statutes implicated by management of wilderness areas within National Forest System lands include, but are not limited to, the Organic Administration Act (16 U.S.C. ss 475, 478, and 551); the Multiple-Use Sustained-Yield Act (16 U.S.C. ss 528); the National Forest Management Act (16 U.S.C. ss 1601-1614); the Wilderness Act (16 U.S.C. ss 1131-1136); the Endangered Species Act (16 U.S.C. ss 1541-1543); the Alaska National Interest Lands Conservation Act (16 U.S.C. ss 3210[a]); The National Environmental Policy Act (42 U.S.C. ss 4321, et seq.); and, the National Historic Preservation Act (16 U.S.C. ss 470-470w-6).

Could the Gardner Canyon Gypsum Mine be prevented from occurring by buying Mr. Steele's mineral rights?

Yes. Mr. Steele's mineral rights could be purchased or exchanged for federally owned mineral rights/property elsewhere. Assuming Mr. Steele would be willing to sell, the Forest Service or any other private organization or individual could buy his mineral rights at any time. If the Forest Service were to consider purchasing the mineral rights, an appraisal would be done to determine the fair market value of the property. Mr. Steele has a continuing option of being able to sell, but he has also expressed his intent to mine based on submission of his special use application for road access. In 1993, the proponent and the Forest Service actively pursued the option of a land exchange/purchase. Details of this effort are described in Chapter II.

Why can't Mr. Steele be forced to access the subject lands via the portion of his mineral rights area that extends beyond the National Forest wilderness boundary?

This is a complex question which cannot be answered with a yes or no. There are three considerations in evaluating this question.

As an owner of a private mineral right, Mr. Steele is guaranteed a right to ingress and egress. The exact location and terms of this access is not defined. The determination of whether he has a valid existing right to access up Gardner Canyon based on his deed, is open to interpretation.

Section 5.(b) of the Wilderness Act states "in any case where valid mining claims or other valid occupancies are wholly within a designated national forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consistent with the preservation of the area of wilderness, permit ingress and egress...." The proponent's mineral estate is not "wholly within" as defined by Webster; the majority of the estate (56.98 of the 59.17 acres) is within wilderness.

The requirements of Section 1323(a) of the Alaska National Interest Lands Conservation Act (ANILCA) has bearing on Mr. Steele's access. ANILCA provides that an owner of private land within the National Forest can secure access across National Forest System lands for the reasonable use and enjoyment of the private land. Any grant of access is subject to the Secretary's regulations at 36 CFR 251.54, subpart B and 251.110. Those regulations provide for granting of special use

authorization for access purposes, but such authorizations are made subject to the requirements of all other applicable laws.

Mr. Steele's mineral parcel has been determined to be within the Forest Service System boundary of the Uinta National Forest. Consequently, access to the parcel will be analyzed in accordance with the ANILCA access regulation found at 36 C.F.R. Part 251, Subpart D.

Why can't the Forest Service do more to regulate the mining operation itself and be specific about reclamation and mitigation requirements?

The Forest Service implements and enforces regulations related to surface protection when there is a statutory authority – when an individual stakes and files a claim under the U.S. Mining Law of 1872, as amended. Mr. Steele's mineral interest, however, is actually privately owned outstanding mineral rights originating from patented mining claims. The Forest Service has no specific regulations related to surface protection of outstanding mineral rights but it does have the responsibility to ensure that the surface disturbance will be limited to what is prudently necessary for the proposed operations. The Forest Service has been authorized and directed by Congress to regulate National Forest System lands, to protect them, and to carry out their purposes. It has also been authorized and directed to administer wilderness areas so as to preserve the wilderness character of the land. This general regulatory authority is set forth under the Organic Act (Sec 16 USC 472, 475, 551). The agency would have to rely on State law, but if necessary to assure adequate protection of the surface estate, the Agency could pursue appropriate legal action to resolve discrepancies about a specific mine operation plan.

Mr. Steele must submit an operating plan to the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, which must be authorized before he can begin to mine. Then the Forest Service, State of Utah, and Mr. Steele will negotiate reclamation and mitigation measures to assure reasonable protection of the surface estate. At this juncture, the Forest Service cannot develop specific reclamation and mitigation requirements because Mr. Steele's complete operating plan has not been submitted, and the Forest Service has no authority to demand its submission. The Forest Service must receive a supporting need for the access request. The Plan of Operations submitted by the proponent (Appendix A), though not adequate to develop specific reclamation and mitigation requirements, does support a need for access. To prepare for these negotiations, the Forest Service has displayed the effects of a worst case mine operation scenario and the effects of implementing the Forest Service mitigation and reclamation proposal. When the negotiation phase with the State begins, the Forest Service will propose more detailed reclamation and mitigation measures based on Mr. Steele's actual operating plan.

What is "reasonable" surface protection?

As described on page I-7, under State Authorities, herein lies the challenge. The term "reasonable" emerges from State mining law. The objective is to provide "reasonable" surface protection and at the same time to avoid placing unreasonable restrictions on the mining operation. A standard definition of "reasonable" does not exist; hence the necessity for negotiation between the surface estate owner, mineral rights owner, and State regulatory agency.

What can be done to protect the water rights of the Gardner Canyon Irrrigation Company?

The Gardner Canyon Irrigation Company will have opportunity to develop an approach to the mitigation and reclamation process that protects water rights. Similarly to the Forest Service, the irrigation company would be party to negotiations with the State and Mr. Steele to assure that these interests are represented and accounted for in the provisions of Mr. Steele's mining permit. The State would assure water quality standards were maintained. The Gardner Canyon Irrigation Company would have a legal right against the proponent of the mining operation if water quantity were affected. The proposed Forest Service decision affects access and will not affect water quality and quantity.

What happens if Mr. Steele changes his plans in the future – will the public have an opportunity to provide input?

Under certain circumstances, the NEPA process could be applied to Mr. Steele's proposals again in the future. If his detailed mining plan causes significant effects not disclosed in this document, another analysis would be prepared. For example, if Mr. Steele proposes to disturb any resources outside of the subject lands or lands associated with the potential access road, additional analysis and public involvement would occur. In addition, NEPA analysis would be done for a trade, but would not be necessary for a buy-out. Should future operations change the requirements for access as requested on this application or if future operations changed the effects analyzed in this document, additional NEPA would be required.

THE ROLE OF OTHER AGENCIES

1. Federal.

   Certain portions of this project are subject to Federal control. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers has the authority to require a permit before any dredged or fill materials are discharged into wetlands or waterways. The U.S. Environmental Protection Agency (EPA) plays an oversight role in wetland and water quality protection. In addition, under the National Environmental Policy Act, EPA is charged with review, comment, and coordination on "major federal actions." The U.S. Fish and Wildlife Service has responsibility for the Threatened and Endangered Species Act. Finally, Mine Safety and Health Administration (MSHA) - U.S. Department of Labor has responsibility for ensuring worker health and safety protection on mining projects.

2. State.

   The State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining (DOGMI) is charged with permitting the operation and overseeing the reclamation of lands disturbed by mining activities. This agency issues a small mine permit for operations under 5 acres and a large mine permit for disturbances greater than five acres. The specifics of these permits are spelled out in the State of Utah Land Reclamation Act, Title 40, Chapter 8, Rule R647-1 and R647-4. The Forest Service would enter into a cooperating agreement with the State to mutually administer this operation. Reclamation requirements beyond the scope of the State permit which the Forest Service feels are necessary would have to be negotiated by the Forest Service with the proponent. In addition, the Utah Department of

Environmental Quality has the responsibility for permitting projects that could affect air quality and water quality. A permit would be required by the Utah Air Quality Board.

3. Juab County.

The road leading to the Forest boundary is a public road maintained by the county and is therefore subject to County control.

ISSUES

Outlined below are issues that have been identified through public scoping process (see Appendix C) or that represent an area of Forest Service management concern.

1. *PHYSICAL ENVIRONMENT*

a. Wetlands

(1) There is a concern over potential impacts to riparian areas, wetlands, and flood-plains.

b. Water

(1) There is a concern over increased sediment and turbidity in the Gardner Canyon drainage.

(2) There is a concern about changes in surface runoff, water quality, and quantity.

(3) There is a concern about potential effects the project will have on the holders of water rights in the form of increased sediment, damage to developments, and water quality.

c. Geology and Soils

(1) There is a concern over the amount of soil erosion, loss of soil resource, and effects on vegetation, and whether the site and roads can be properly revegetated and reclaimed.

(2) There is a concern that the continued mining of the hillside will result in additional slumping and mass failure.

d. Visual Resources

(1) There is a concern over adverse effects this project will have on aesthetics in terms of vegetation removal and ground disturbance.

e. Cultural Resources

(1) Will there be damage to artifacts or potential sites?

f. Air Quality

(1) There is a concern with the project's effects on air quality in terms of dust and combustion emissions.

(2) How will monitoring for air quality be accomplished?

g. Wilderness

(1) There is a concern on how the wilderness environment will be affected while mining and hauling operations are proceeding.

(2) There is a concern on the potential effects to the physical and biological environment that make up the wilderness resource, as designated by Public Law 98-428.

(3) There is a concern that the proposed operation will significantly impact the wilderness characteristics that presently exist and cause permanent degradation to the resource.

h. Mining Operations

(1) How long will the mining and the disruption continue?

(2) There is a concern for public and employee safety on and around the project area.

(3) There is an issue with the proponent's rights under the 1872 Mining Law and how they will be protected.

(4) There is a concern that adequate bonding requirements or assurities be available to guarantee that resource protection and reclamation will occur.

2. *BIOLOGIC ENVIRONMENT*

a. Wildlife

(1) There is a concern that the project will affect wildlife populations or habitat in terms of displacement, loss of vegetation, and acres of ground disturbance.

(2) There is a concern with the potential effects to big game winter range in terms of acreage disturbed and displacement.

b. Local Economy

(1) What will be the effects on local and county socio-economies?

CHAPTER II - ALTERNATIVES INCLUDING THE PROPOSED ACTION

INTRODUCTION

The alternatives discussed below were developed in response to the special use application for access as well as regulations, and issues raised during public involvement. These alternatives address the need for access along with the needs for reasonable surface protection that would accompany the mining of minerals associated with the outstanding right. Negotiation for surface protection will occur at the time an operating plan is filed with the State.

FORMULATION OF ALTERNATIVES

An interdisciplinary team sought to develop a range of alternatives which would represent legally, technically, and economically feasible alternatives to the proposed action. Alternative A, No Action, is required under NEPA [40 CFR 1502.14(d)]; it provides a baseline against which the other alternatives are compared (Forest Service Handbook 1909.15-14.1). Alternative B was submitted by the proponent and Alternative C was developed to reduce impacts to wilderness resources.

ALTERNATIVES CONSIDERED AND ELIMINATED FROM DETAILED STUDY

An alternative to regulate this activity through Code of Federal Regulations (36 CFR 228), was considered and eliminated from detailed study:

IMPLEMENTATION OF FEDERAL MINING REGULATIONS (36 CFR 228)

This alternative assumes a full range of authority available to the Forest Service to regulate this activity and impose conditions upon the operations of the mineral owner. This alternative would regulate the proposed operation as if it were regulated by Section 228 - Minerals of the Code of Federal Regulations (36 CFR 228). Since the Forest Service lacks the regulatory authority to impose these conditions, this alternative was not studied in detail. However, elements of the alternative could be negotiated with the proponent and are included in Alternatives B and C below.

Many of the issues and concerns are a direct result of the connected mineral operations not being compatible with wilderness characteristics. The following alternatives to eliminate or reduce conflicts with wilderness values were considered and eliminated from detailed study:

DE-CLASSIFICATION OF THE AFFECTED AREA

Under this alternative, a proposal to Congress would be made to remove the wilderness classification from the subject lands and road corridor. As such, mining would not be the incompatible use many perceive it to be in wilderness. However, the impacts of disturbing the Federally-owned surface estate would still occur. The proximity of these activities to wilderness would still have negative impacts upon the Mount Nebo Wilderness. The boundary adjustment would require extensive analysis, consuming both time and funding. The proponent would be denied his legal rights to his mineral resource during this process. The authority for its implementation rests with Congress. When the original Bill for this wilder-

ness was passed, the knowledge of these claims was part of the analysis process and at the time they were not excluded from the wilderness boundary. The Wilderness Act has provisions for mining and this portion of the Mount Nebo Wilderness presently contains evidence of historic mining activity. Based on these circumstances, this alternative is determined to be unreasonable and not considered in greater detail.

PRIMITIVE MINING AND TRANSPORT

This alternative would involve mining and extracting the gypsum ore with primitive methods, which would still generate impacts to the wilderness, but the mining method would be more compatible with wilderness values than other alternatives. The interdisciplinary team considered this alternative to be economically unreasonable due to large numbers of livestock and personnel that would be needed. Under State law, ownership of mineral rights in land is dominant over the rights of the owner of the fee to the extent reasonably necessary to extract the minerals therefrom. The Forest Service determined this alternative to be unreasonable and impractical under the circumstances, so this alternative is not addressed further. This determination was based on professional input from the U.S.D.A. Forest Service, Minerals Staff, Regional Office, Region 4.

UNDERGROUND MINING

This would consist of accessing the deposit via a portal being placed outside of wilderness. Mining of the material would then proceed using appropriate underground mining methods. Access to the claims would not be needed since underground mining would occur.

This alternative was evaluated by a mining engineer (see above) and found to be unreasonable. For this reason, the alternative is not considered further.

NON-FEDERAL LAND ACCESS (EXCLUSIVELY)

An alternative to access said lands without entering the designated wilderness, (outside of the mineral rights boundaries) was considered, but eliminated from detailed analysis because:

The proponent would still need to construct access roads within wilderness to be able to make reasonable use of the ore body encompassed by his outstanding mineral rights.

Although it is possible to build an access route that will not be within wilderness it is not practical or reasonable, based on cost, visual impacts, and the associated environmental impacts of constructing a road across that piece of ground. This determination was based on professional input from the U.S.D.A. Forest Service engineering staff on the Uinta National Forest.

To minimize impacts to the wilderness and meet reasonable requirements, Alternative C was put forth. This Alternative provides non-wilderness access except for a short (approximately 200 ft.) piece of roadway.

OPPORTUNITIES CONSIDERED WHICH ARE SEPARATE FROM THE ACCESS ANALYSIS AND DECISION

Many of the issues could be eliminated by acquisition of the mineral estate. To display the opportunities and circumstances associated with this approach, the following discussion is included.

Federal Acquisition of the Mineral Estate

There are three means by which the Federal Government could acquire the mineral estate: federal purchase, a land exchange, or donation after private acquisition. These three options are described in detail in subsequent sections. They have been considered and continue to remain open for consideration. However, it is important to understand the legal rights, roles, and responsibilities of proceeding with these options, as part of putting them in perspective as a separate solution to the access request.

As described in the Federal Regulations, there are many laws that authorize the exchange of National Forest System lands or purchase of private inholdings to meet management objectives within the system. Land exchanges or land purchases are discretionary, voluntary, real estate transactions between the Secretary of Agriculture acting by and through the Forest Service and private owners, States, or other non-Federal entities. It is important and mandated that the exchange or purchase be in the public interest. When considering public interest, the Forest Service shall give full consideration to better Federal land management and the needs of State and local people, including needs for lands for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife. There must be a finding that the purchase or exchange will not result in a decrease in public values or the ability to meet National Forest System (NFS) management objectives.

In order to pursue opportunities to acquire the mineral estate, the mining proponent (holder of the mineral estate) and the Federal Government would both have to agree to exchange ownership of these rights. The USDA Forest Service currently has no authority for condemnation within wilderness.

In February of 1993, the Forest Service was contacted by the proponent, who wanted to initiate a land sale or exchange. Based on receipt of an agreement to pursue these options for "fair market value", the Forest Service stopped work on the EIS and explored opportunities of a land exchange. A description of this effort is described under "land exchange" below. This exchange did not occur; however the option of an exchange will always exist. This document explores alternatives for access, and mitigation to the connected action of mining. Since acquisition of the mineral estate would eliminate a need for access, it is put forth in this document as opportunities which were, and continue to be, considered, but separate from the access analysis. Information associated with this exchange process is documented in the project file.

Federal Purchase of the Mineral Estate

This option would require the U.S. Government to authorize either the purchase or condemnation of the mineral estate in order that the United States would acquire full ownership of the 56.98 acres. In Section 5(c) of the Wilderness Act it states: "Subject to the appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this Act as wilderness if (1) the owner concurs in such acquisition or (2)

the acquisition is specifically authorized by Congress (16 U.S.C. 1134)." The mineral estate could be purchased outright using Land and Water Conservation or Receipts Act monies. However no monies are currently authorized for such a purchase.

The process for completing Federal purchase of the mineral estate is as follows:

Property is appraised to it's fair market value, based on it's highest and best use. After appraisal is reviewed and approved by the Forest Service Regional Appraiser, an offer is made to the land owner. If the owner accepts the offer, an option is signed which fixes the sales price and any conditions of the sale. The Office of Government Council then reviews title evidence and prepares a preliminary title option. Following this and associated instructions, deeds and other documents are prepared and executed. Once funding is secured, an acquisition can be completed in several months. Obtaining funding can take several years.

The option of purchase was explored as part of gathering information for the land exchange. The Federal Government and the proponent were unable to reach agreement on the fair market value of said lands. This action, for the reasons outlined above, is not being pursued at this time and is not considered in the analysis as an alternative.

Private Acquisition of the Mineral Estate

The purchase of the mineral estate by any private individual is also an option. As with any other private holdings, this mineral estate is, subject to the owners willingness to sell, available for purchase. Should it be purchased by an individual(s) who had no desire to pursue development or was willing to deed the rights to the Federal Government, the need for access would be eliminated.

Land Exchange

This option would require to U.S. Government to authorize the exchange of Federal lands for the mineral rights. The process for using this approach is outlined as follows:

An exchange of federal minerals, or federal lands of equal value for the private mineral, is possible.

An exchange involves several additional steps to those described under federal acquisition, including the preparation of a Statement of Intent, which identifies federal and private lands identified for consideration of exchange. Also, an environmental assessment and decision memo must be completed. The appraisal process evaluates and assesses market value for both the federal and private lands. Difference in values between the properties cannot exceed 25%. Most land exchanges take around 2 years to complete.

On February 26, 1993, the Spanish Fork Ranger District received a Statement of Intent from the proponent. This document identified several different pieces of property which would be acceptable for a land exchange. Upon receipt of this document, the Forest Service corresponded with the proponent and agreed to postpone further action concerning the request for access, including completion of the FEIS, in order to pursue the land exchange options. The Forest Service worked with the Bureau of Land Management and an independent land appraiser in an effort to develop a land exchange. In December of 1993 the Forest Service met with the proponent to discuss possible options of exchanging lands. The results of this meeting were: 1) the Forest Service and proponent were unable to reach agreement on the fair market value of said lands, 2) at this time, a land ex-

change was not going to occur. In January 1994, the Forest Service was requested by the proponent to discontinue efforts to complete a land exchange and resume completion of the FEIS.

This course of action, for the reasons outlined above, is not being pursued at this time and is not considered in the analysis of this document as an alternative. The option of reconsidering a land exchange will continue.

ALTERNATIVES CONSIDERED IN DETAIL

ALTERNATIVE A - NO ACTION

The No Action Alternative is defined as no development of access and no mining operation. Under this alternative, the Forest Service would deny Mr. Steele's special-use permit request and accompanying Operating and Development Plan for his gypsum mine proposal on the Uinta National Forest.

Mr. Steele has private ownership of the mineral estate. As such, he has the right to employ reasonable access, subject to the terms of his deed and State law, to pursue and develop his mineral resource. The proponent's legal right to development, as outlined in his deed, includes a right to access his minerals. Where the Forest Service owns only a portion of the total estate, a decision to take no action on a proposal to exercise outstanding rights is not within the jurisdiction or authority of the Forest Service.

NEPA procedural policy requires the Forest Service to study the No Action Alternative in detail and use it as a baseline for comparing the effects of all other alternatives, (CFR 1502.14(d), and Forest Service Handbook 1909.15, 14.1). The No Action Alternative is used in this analysis for comparative purposes. By evaluating this alternative, a comparison can be more accurately made between all alternatives.

ALTERNATIVE B

The proposed Plan of Operations would require access to the claims for mining equipment and ore transportation through Gardner Canyon, along the existing unimproved road (see figure 3). A special use application under this alternative was submitted for access in this location, along with a justifying Plan of Operation (Appendix A). The gypsum deposits within said lands (the confines of the Macfarlane No. 1 and No. 4 and the Little Doctor claims) would be developed using on open-pit mining method. A special use permit for road improvements would be issued by the Forest Service. The permit would authorize construction of a gravelled 12-foot wide travelway with turnouts along the existing road location. Road drainage would be accomplished by using rolling dips, installing one 16-foot culvert, and insloping/outsloping of the roadbed. Two turnouts would be constructed. Use of the road would be tied to the mining activities. The permit would specify construction standards, use periods, maintenance requirements, and reclamation procedures upon termination of use. Reclamation would include rehabilitation practices suitable for retaining the land in a condition in which it can resume it's wilderness character. This would include practices such as replacing the fill into the cut, saving and replacing top soil, use of native species for revegetation, and continuing monitoring and rehabilitation efforts until they are successful. The permit would also authorize work access roads to reach ore at the top of the ridge within said lands. These roads would be constructed on a grade greater than 10%, would be 12-feet

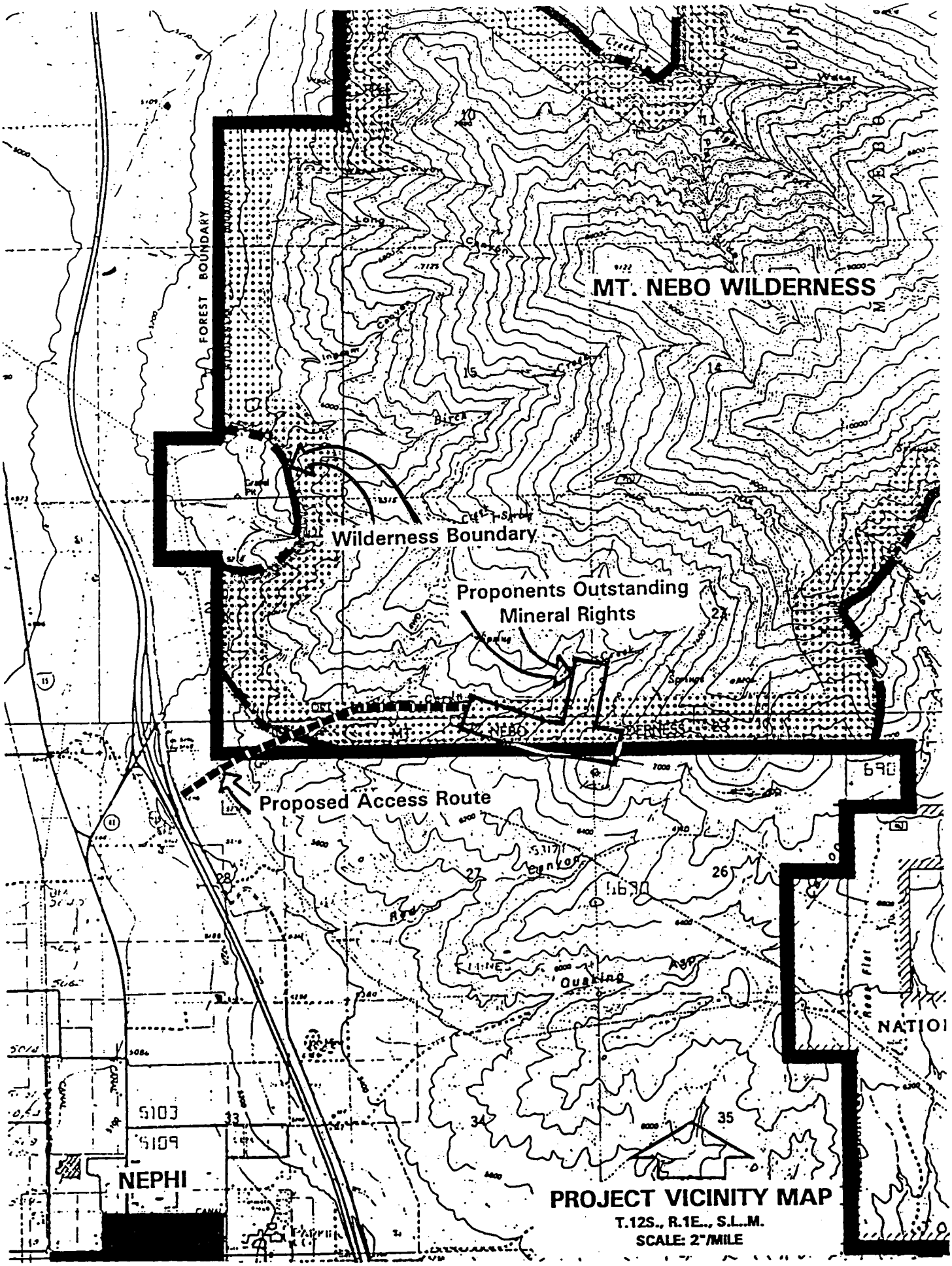

MT. NEBO WILDERNESS
FOREST BOUNDARY
Wilderness Boundary
Proponents Outstanding
Mineral Rights
Proposed Access Route
NEPHI
PROJECT VICINITY MAP
T.12S., R.1E., S.L.M.
SCALE: 2"/MILE

FIGURE 3

wide, and have adequate drainage. With the exception of access roads, all mining activity would be confined within the limits of the proponent's mineral rights (the original patented claims).

The duration and extent of the mining operation with a need to access is not known. Production rates could vary, and the exact nature of the gypsum deposit - including the dimensions, shape, geometry, tonage, and grade - is not known. The economics of mining gypsum would dictate the scale of the operation. A geological report for the area, done by U.S. Bureau of Mines personnel (Korzeb 1991, estimated that about 270,000 tons of gypsum appear to be present. Mr. Steele asserts that there is considerably more than that. For the sake of analyzing the connected actions, it is assumed that the entire area would be mined, and all necessary access in association with that mining would be constructed.

The plan of operation submitted (Appendix A) serves as a potential operation, supporting the special-use request. Prior to issuance of a special-use permit and the initiation of a mining operation, a specific plan of operation would have to be developed by the proponent. This plan would detail the current mineral development proposal.

The mining operation(s) would be permitted by the State of Utah, utilizing the mineral rules of the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, as set forth in the State of Utah Mineral Land Reclamation Act, Title 40 Chapter 8. Specifically, Rule R647-1 and Rule R647-4 would be used, along with the appropriate forms to permit the operation. This would include a reclamation plan and a reclamation surety.

In addition, Mr. Steele would be required to obtain all necessary permits or clearances from: The State of Utah, Department of Health, for Air Quality; the U.S. Army Corps of Engineers for activities affecting wetlands or waterways; Mine Safety and Health Administration (MSHA) and U.S. Department of Labor for necessary safety, and road use agreements with state or county jurisdiction.

The Forest Service would issue a special use permit for all surface-disturbing activities outside of the claimed area. This would include reconstruction on one mile of the existing access road up Gardner Canyon, one-half mile of access road associated with the mine operation, and any surface disturbance done in conjunction with the proposed project. This special use permit will address construction and maintenance standards, reclamation requirements, and a reclamation surety provision. A special use permit would not be issued until the appropriate permits for mining have been secured from the State. The Forest Service would work with the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, and the proponent, to develop an agreement of what mitigation measures would be incorporated into the Plan of Operations and Reclamation Plan for the determined mining operation.

Under this alternative, the Forest Service would set forth the following environmental protection measures as a minimum. During the negotiation phase for a specific operating plan, additional requirements might be set forth to meet environmental protection measures designed to address the basic needs of the Forest Service. "Reclamation" means actions performed during or after mining operations to shape, stabilize, revegetate, or otherwise treat the land affected in order to achieve a safe, stable, ecological condition and use which will

be consistent with local environmental conditions. For reasonable surface protection for any operating plan, the following would be included:

1. *GENERAL SCOPE*

   The Forest Service and operator would develop an Agreement of Terms which would require submission of an Annual Operating Plan identifying any forseeable changes from the previous year's operation.

2. *AIR QUALITY*

   Construction and operations activities would be conducted in accordance with applicable State air quality rules and standards.

   Dust abatement would be implemented on unpaved access, construction mining areas, and haul roads (entire mining operation).

3. *WATER QUALITY*

   The proponent will provide an engineering structural stability analysis to determine the allowable height of the pit walls. Drainage ditches and structures would be constructed around the pit, approved top soil stockpile locations, and overburden dumps. Drainage needs would also be incorporated along the proposed road locations to intercept surface runoff and reduce erosion and sedimentation.

   Adequate provisions to protect existing water rights would be incorporated in the Plan of Operations and Reclamation Plan. No net loss of wetlands would be allowed. This would include the involvement of the Gardner Canyon Irrigation Co.

   Mr. Steele would develop a surface water drainage plan, in coordination with the Uinta National Forest, to ensure that runoff would be effectively channeled into sediment retention structures and erosion would be minimized. The goal of this plan would be to eliminate overland mud flows and reduce soil erosion and sediment transport into Gardner Canyon.

   Petroleum products and chemicals would be stored in durable containers or impermeable containment structures. A hazardous material contingency plan would need to be prepared, implemented, and enforced to protect water quality.

   Equipment servicing areas would be located away from streams to prevent contamination.

   A program to regularly monitor water quality in Gardner Canyon would be implemented.

4. *SOLID WASTE*

   All waste oil and petroleum products would be removed and disposed of according to State and Federal regulations.

Garbage and solid waste would be disposed of in approved sanitation landfills within the Nephi area.

5. *SCENIC VALUES*

To mitigate visual impact, timely concurrent reclamation would be required. Native species would be used to revegetate and reclaim disturbed sites.

To mitigate visual impact of the open-pit operation, prudent design and operation which would stabilize and minimize cut slopes, and minimize the amount of disturbed area at any one time, would be required.

6. *AESTHETICS*

The work area would be kept as clean and neat as possible at all times. All refuse would be regularly removed from National Forest System land.

All improvements and equipment will be removed when no longer necessary to the operation.

7. *WILDLIFE HABITAT*

An operating period from May 15 to November 15 would be established to recover the privately-owned minerals.

Reclamation planning would include goals of wildlife habitat restoration for big game winter range. If impacts cannot be mitigated on site, it will be provided for at a location nearby.

8. *ROADS*

Cut and fill slopes of new haul roads would be revegetated to decrease sedimentation potential. Cut slopes would be specified by the Forest Service, depending on the type of material.

Exploration roads and haul roads would be reclaimed when no longer needed for access.

Forest Service approved dust suppressant would be applied to roads annually during active operation.

9. *RECLAMATION*

Topsoil will be stockpiled and re-spread over disturbed areas where feasible.

A detailed reclamation plan based on post-mining land uses, described during the Gardner Canyon gypsum mine environmental analysis, would be completed by the proponent and approved by the Forest Service prior to project initiation.

Reclamation practices outlined in section R647-4 of the State of Utah, Department of Oil, Gas and Mining regulations would be the standards and guidelines for reclamation of the proposed project.

Intensive surface revegetation efforts on any landslides which are attributed to mining activity would be required.

Seasonal shutdown would include provisions for temporary reclamation to mitigate erosion, runoff, and sedimentation problems.

10. *SAFETY*

Signs would be placed at appropriate locations explaining the mining activity and advising visitors of safety consideration. Safety precautions will be incorporated into the operation as a result of securing necessary State and Federal permits. Reclamation requirements will include provisions for achieving a safe condition consistent with local environmental conditions.

11. *WILDERNESS*

The mitigation measures described above will address the wilderness characteristics each of those resources possesses. The reclamation plan described under reclamation will consider the wilderness resource. Section R647-7-111 reclamation practice, (item 5: "land use - the operation shall leave the on-site area in a condition which is capable of supporting the postmining land use,") shall account for the current land use as a designated wilderness. Reclamation for that land use, wilderness will be incorporated into the reclamation plan.

ALTERNATIVE C

This alternative would develop a basically non-wilderness access route to said lands. The main access road would be outside of National Forest System land (wilderness) to the south of said lands (see Figure 4) with the exception of about 200 feet which would be within designated wilderness. This would require construction of an access road from the ridge above Gardner Canyon down to County roads which access Red Canyon. The exact location of this road has not yet been determined, but an estimated 2.25 miles of new road construction would be required, at an estimated cost of $45,000 per mile. Approximately one-half mile of secondary access road to reach various points of operation on subject lands allowing full utilization of property, would be constructed on National Forest System lands. Right-of-way would have to be acquired, based on the terms of the deed, across private and Utah State Division of Wildlife Resources lands. The latter lands were purchased with Federal aid and wildlife restoration funds for high priority value big game winter range.

The mining method would be at the proponent's discretion, permitted by the State, and could vary from year to year, but all ore would be hauled from the claims over the proposed road.

The life of the project, as in Alternative B, would depend on the amount of gypsum present and the economics of mining the deposit.

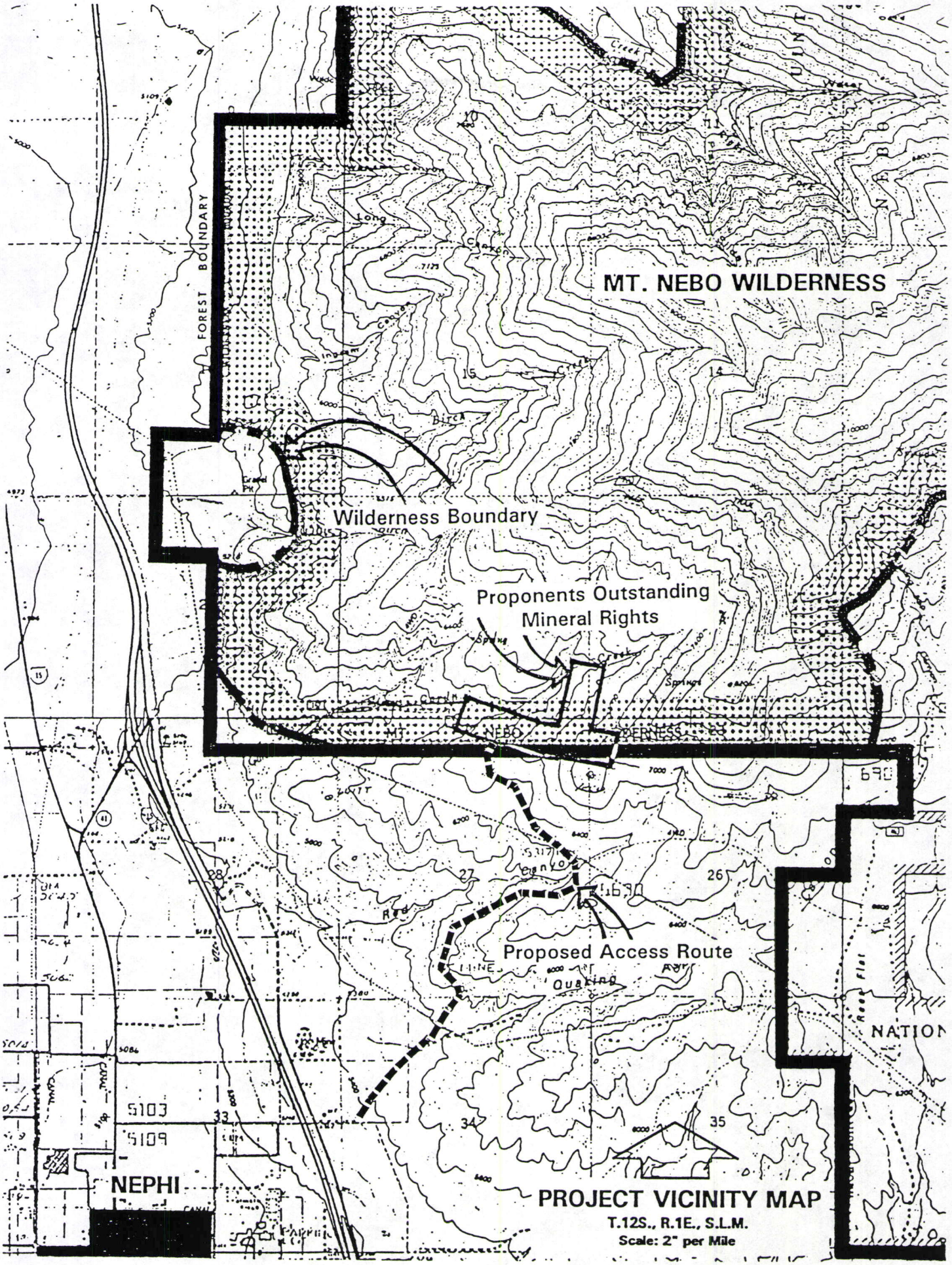

MT. NEBO WILDERNESS
Wilderness Boundary
Proponents Outstanding
Mineral Rights
Proposed Access Route
NEPHI
PROJECT VICINITY MAP
T.12S., R.1E., S.L.M.
Scale: 2" per Mile

FIGURE 4

The secondary road construction and operation which would occur on National Forest System lands would be permitted with a special use permit as described in Alternative B, except no access would be permitted up the bottom of Gardner Canyon. Only that access needed to realize full use of the property right would be permitted.

As with Alternative B, the Forest Service would work with the State and Mr. Steele to develop an agreement of what mitigation measures would be incorporated into the Plan of Operations and Reclamation Plan. The environmental protection measures identified in Alternative B would also be incorporated into this alternative. Additional mitigation measure(s) to protect the City of Nephi's water source at Rowley Spring would be included.

The major difference between this alternative and Alternative B is the construction of access outside of wilderness, more up-front road construction, and a different point of origin for initial mining development. The surface disturbance over the life of the mine within the claimed area and the amount of mineral removed would not vary between alternatives.

EVALUATION AND COMPARISON OF ALTERNATIVES

The Comparison Chart on the following page depicts a relative comparison of the alternatives in terms of environmental and socio-economic consequences. For a full explanation of comments in the Comparison Chart, refer to narratives in Chapter IV.

ALTERNATIVE COMPARISON CHART

Alternative	Visual Resources	Cultural Resources	Hydrologic Resources	Air Quality	Vegetation Resources
Alternative 1 No Action	Preservation standard retained.	No disturbance. No existing sites.	No change to current conditions.	Existing quality retained.	Current vegetation undisturbed.
Alternative 2 (Worst Case)	Maximum modification for duration of project.	Surface disturbance. No existing sites.	Maximum disturbance of 63 acres, 50 acres potentially unreclaimable. Increase in runoff and turbidity.	Increased road dust and exhaust emissions.	Maximum disturbance of 63 acres. No planned disturbance to wetlands or riparian.
Alternative 3 (Worst Case)	Maximum modification for duration of project. Higher visual impact from 2.25 miles of road construction.	Surface disturbance. Sites if present will be protected.	Maximum disturbance of 65 acres, 50 acres potentially unreclaimable. Increase in runoff and turbidity.	Increased road dust and exhaust emissions.	Maximum disturbance of 65 acres, no planned disturbance to wetlands or riparian.

Alternative	Soil Resources	Socio-Economics	Wilderness	Mineral Development	Wildlife
Alternative 1 No Action	Existing soils maintained.	No change over present condition.	No change to current condition.	Mineral development forgone.	No change to current condition.
Alternative 2 Proposed Plan Wilderness Access	Maximum disturbance of 63 acres. Loss of soil productivity.	Increased opportunities for 3-5 people or more to be employed.	Loss of wilderness characteristics for duration of project. 1 mile of existing road within wilderness, would be improved and used as access and haul route. All of the disturbed acres (63) are in wilderness.	Minimal costs to initiate small scale mineral development.	Loss of 63 acres of habitat for duration of project (over life of project).
Alternative 3 Non-Wilderness Access	Maximum disturbance of 65 acres. Loss of soil productivity.	Increased opportunities for 3-5 people or more to be employed.	Loss of wilderness characteristics for duration of project. Access and haul route outside wilderness. 61 acres of the disturbed area is in wilderness.	Additional cost for road construction estimated $90,000.	Loss of 65 acres of habitat for duration of project (over life of project).

CHAPTER III - AFFECTED ENVIRONMENT

INTRODUCTION

The affected environment is that area and/or resources in and around the project area which could experience biological and physical impacts as a result of implementing one or more of the alternatives. The effects of this proposal are generally limited to the topographical boundary of the Gardner Canyon watershed and the Red Creek watershed. Some of the environmental effects of the alternatives extend beyond the project site and National Forest System lands. Visual, air, and water resources could be affected far beyond the on-site area.

VISUAL RESOURCES

The visual resource for the project area is influenced by wilderness designation. As a wilderness area, the desired future condition of the visual resource is defined by the "preservation" visual quality objective. This visual quality objective allows for natural ecological change only. Management activities, except for those involving very low visual impact, are prohibited.

The sensitivity level for the project area is high. The project area is part of the Mount Nebo range. The scenic backdrop provided by these high mountain peaks and ridges is highly distinctive and serves as a landscape feature and focal attraction for photographers, hikers, and those traveling Interstate 15.

Within Gardner Canyon there is approximately 2 miles of unimproved roads and several excavated areas from past mineral activities. The visual quality objective of preservation is currently not being met.

The project site can be seen primarily from view points within the project area, but it can also be viewed from Interstate 15, U.S. Highway 91, Highway 132 and the City of Nephi. The existing road in the bottom of the canyon can be viewed only from within the project area.

CULTURAL RESOURCES

In 1990, the total project area on National Forest System lands was inventoried to document the presence of important cultural resources. No sites in the surveyed area were recorded, and the Utah State Historical Preservation Office has issued a cultural resource release for the affected area. The said lands outside of National Forest System lands, and possible road locations under Alternative C, have not been inventoried. A survey would be completed prior to ground disturbing activity on non-Federal lands and no disturbance to cultural resources would be allowed to occur. The responsibility to protect cultural resources applies to all lands, regardless of ownership, and is regulated by the State of Utah Historical Preservation Society. The Forest Service has the responsibility for cultural resource management on National Forest System lands.

PHYSICAL RESOURCES

1. *Geology and Geomorphology*

The project area is located at the base of the Mount Nebo range, which is part of the Wasatch Front. Gardner Canyon is a narrow valley shaped by stream erosion. The said lands are located over sedimentary geologic formations, shaped by glacial/fluvial processes. The mineral rights are located on a steep (30-60%) sidehill. The gypsum deposit is contained in or near the crest of a northward plunging anticline.

According to Steele (1991), the west limb of the anticline dips to the west at about 30 degrees. Toward the top of the ridge, Korzeb (1991) measured the strike of the beds at north 30 degrees east, with a dip of about 12 degrees to the west. Withington (1964) states that most of the gypsum beds in this area are contained within the Jurassic age Arapien Shale. The gypsum was "squeezed" into the crest of the anticline during folding, and resulted in a thickening of the gypsum body into a lens shape. Subsequent erosion has exposed the top of the gypsum deposit. Korzeb's records indicate that surface exposures of the body measure about 1300 feet long by about 190 feet wide, and the thickest exposure of the gypsum bed measured about 15 feet. A geologic map of the area may be found as part of a report entitled "Mineral Resources of the Birdseye, Nephi, and Santaquin Roadless area, Juab and Utah Counties, Utah." That report is not included in this document, but is part of the analysis file. For more detailed information, see the document on file in the planning record.

Mount Nebo was identified in a Middle Rocky Mountains Geological Theme Study (J. Keith Rigby, Department of Geology, Brigham Young University) as a potential National Natural Landmark (NNL). It received a priority 1C rating, which indicates the highest ranking for national significance, with no immediate danger to its integrity.

2. *Climate and Precipitation*

The project area is between 6400 and 7200 feet in elevation. No precipitation stations are located within the watershed, but Nephi, which is located 2 miles southwest, receives an average of 16 inches of precipitation per year. Between eight and ten inches fall as rain and an average of 65 inches of snow falls annually. Most of the precipitation occurs during the fall through spring, except for several summer thunderstorms. Some of these thunderstorms can be high intensity, short duration storms where peak runoff can occur. Generally, runoff is characteristic of a snow melt hydrograph, with high flows occurring usually in the last week of May.

The climate is semi-arid, and temperatures fluctuate greatly both daily and seasonally. The average frost-free season for the area is June through September. The average temperature is 67 degrees maximum and 43 degrees minimum.

3. *Surface Water*

There are no springs or water bodies within said lands. There is a live stream in the upper reaches of Gardner Canyon which passes through the Little Doctor Claim boundary. This stream maintains a year-round flow of approximately .30 c.f.s. It is di-

verted into a steel pipe just above the Macfarlane #1 claim boundary, and transported off Forest for use in the valley. Twelve shareholders of the Gardner Canyon Irrigation Company use this water for irrigation, livestock water, and culinary purposes. The filter box and catchment facility are located near the Macfarlane No. 1 claim boundary just below the area where the proponent proposes to start mining. This water development is authorized under a special use permit with the Forest Service.

4. *Riparian Areas, Flood Plains and Wetlands*

There is a narrow margin of wetland associated with the Gardner Creek channel up stream from the existing stream diversion. Coincidentally, a narrow (3-5 ft. wide) riparian zone exists in this same area. A narrow flood plain occupies this same area and continues on downstream through the alluvial bottom below the National Forest boundary.

5. *Basin Runoff Characteristics*

The water in Gardner Canyon comes from spring sources located in the upper reaches of the canyon and from sub-surface flow. During heavy periods of precipitation and during spring runoff, some surface runoff flows into Gardner Canyon. Existing vegetation and soil types tend to minimize overland flow. The basin covers about 3,200 acres. Elevation for the watershed ranges from 5,000 - 10,000 feet. Orientation of the drainage is west. The project area is located on the north-facing slopes of the watershed about halfway up the drainage. Longitudinal stream slope averages 8-10 percent. Side slopes average 30-60 percent.

6. *Surface Water Quality*

With the exception of heavy runoff periods, the water quality in Gardner Canyon is good. Tributaries carry water in the spring during snowmelt runoff, and during heavy thunderstorms. The overall dissolved solids reflect normal water chemistry and do not exceed EPA and Utah water quality standards. The existing roads and excavated areas outside of the mineral rights have stabilized but are impacting water quality to some degree. It is estimated that a 100-year, 24 hour storm of 3.00 inches would produce about 1.08 acre feet of flood water from the 57 acre area in its current condition, including the areas impacted by the recent mine exploration activity.

7. *Stream Channel Stability*

The flow in Gardner Canyon is such that the stream channel is fairly stable. During the 1983-84 floods, excessive amounts of runoff caused accelerated bank erosion and bank cutting. There was also a large natural mass failure which sent a mud flow off the south side of the canyon, and across the stream channel. This landslide encompasses about 19 acres and is partially located within the said lands encompassed by the old Little Doctor Claim boundary. This mass failure disrupted the stream flow and water transportation of water rights. A new collection system below the landslide has been constructed and the stream flow is now restored. Since the 1983-84 period, no additional landslides have occurred, and streamside vegetation is re-established along

the wet portions of Gardner Canyon. The 1983-84 floods resulted from an extended period of normal precipitation (Committee on Natural Disasters - 1984).

8. *Ground Water*

No seeps or springs are located within the area to be mined. Limited ground water level information is available, as the area has not been drilled. The location of the proposed project and the geology of the area indicate any ground water movement would be below and away from the proposed pit location. Sub-surface water flow does occur within the said lands, in the stream channel of Gardner Canyon.

Nephi City has a water right for 5 cfs from Rowley Spring in Red Creek, which is the drainage to the south of Gardner Canyon. This water is used for irrigation at the Nephi City Cemetery and other adjacent areas.

AIR QUALITY

The project area is located within a State "attainment" area. Air quality is usually good. On occasion, dust and smoke from the valley below will drift into the area. The proposed activity is covered by the Air Conservation Rules of the Air Quality Board and the Utah Department of Environmental Quality, Division of Air Quality.

WILDLIFE AND FISHERIES

1. *Fisheries*

There are no fisheries within the project area.

2. *Wildlife*

Wildlife habitat in the proposed project area is comprised mainly of Gambel oak, sagebrush, and pinyon-juniper plant communities. The project area does not include habitat critical to any threatened and endangered species, but is key winter range for big game. The water in Gardner Canyon is important to wildlife use in the area. The management indicator species for this area are mule deer and Rocky Mountain elk. These species will be used to monitor impacts to the ecosystem as described in the Uinta National Forest Land and Resource Management Plan. The area serves as habitat for the wildlife populations listed below.

Terrestrial Wildlife Populations

Mammals

The project area lies within critical winter range for mule deer, Rocky Mountain elk, and bighorn sheep. Mountain lion and black bear occupy the Mount Nebo Range, but are infrequent visitors to the project area. No migration corridors exist within the project area.

The most common small/medium mammals that occur within the project area include coyote, jack rabbit, mountain cottontail, and striped skunk. Occasional use by raccoon and grey fox is possible. Populations of mice and rodents fluctuate wildly within the project area but are important in representing a prey base to some of the common occurring mammals.

Avifauna

Several species of upland game birds utilize habitat found in the project area. The most common is blue grouse. While no strutting grounds occur within the project area, use still occurs in the form of nesting and brood rearing. Blue grouse inhabit the conifer areas in higher elevations during the winter. Summer habitat includes an interspersed mixture of grass-forb meadows and Gambel oak communities.

A number of raptor species and birds of prey have been observed on or near the project area. Several species of hawks are known to nest in the surrounding areas adjacent to the project site. These include golden eagle, red-tailed hawk, sharp-shinned hawk, and Coopers hawk. The project area is within normal home and hunting territories of these species. Golden eagle nest sites are located in the mouth of Birch Creek and in Quaking Asp Canyon, both of which are just over one mile from the project area. Other birds which are associated with the project area are prairie falcons, owls, and other non-game bird populations. The goshawk may visit the area, but Gardner Canyon is not critical habitat for this species. Due to changes in the seasons, predation, and natural mortality, these bird populations will also fluctuate.

Reptiles and Amphibians

The proposed project area is home to several types of lizards and snakes. The riparian area in upper Gardner Canyon is habitat for both frogs and toads. Garter snakes, gopher snakes, and rattlesnakes are the most common snakes.

3. *Threatened, Endangered, and Sensitive Wildlife*

No threatened, endangered, or sensitive species occur in the study area. A biological evaluation which addresses the potential for threatened and endangered species, using U.S. Fish and Wildlife input, has been prepared for this project (see Appendix B). Two Peregrine falcon surveys were completed in 1988 and 1989 by BYU, Colorado College, and Utah Division of Wildlife Resources. Potential habitat was identified in Willow Canyon approximately 4 miles north of the project area. Currently there are no existing Peregrine falcon populations in Willow Canyon. For more information on threatened, endangered, or sensitive species, see Appendix B.

VEGETATION RESOURCES

The vegetation is typical of a sagebrush/pinyon-juniper/mountain brush area. The species of vegetation that are encountered here are listed in Appendix D. Forb-dominant vegetation exists on the lower elevation south-facing slopes. Tree-brush vegetation is dominant in the higher elevations and upper reaches of the canyon. The majority of the area to be affected by the project is in oak brush/pinyon-juniper vegetation cover. Current use of the project area vegetation is by wildlife

only. There are no threatened, endangered, or sensitive plant species known to exist in the project area.

SOILS

The soils for the proposed mining area are mapped as Pachic Cryoborolls, north slope. A full description of this soil type is listed in Appendix E. Following is a summary description of this soil type:

PD–Pachic Cryoborolls, north slopes - This soil type consists of shallow to very deep soils on north-facing slopes of mountains. The shallow soils generally are on the higher parts of side slopes, and the very deep soils are on the lower parts of side slopes. These soils, formed in colluvium and residuum, are derived predominantly from limestone, sandstone, shale, and volcanic rocks. Slopes are 30 to 70 percent and are convex or concave. In most areas the vegetation is mainly trees, grasses, and shrubs. These soils are variable, but commonly the surface layer is dark brown gravelly loam to stoney loam about 4 to 22 inches thick. The subsoil is dark brown to reddish brown gravelly loam, to very stony clay loam about 6 to 12 inches thick. The substratum is brown to yellowish red gravelly loam to extremely stoney clay loam about 3 to 28 inches thick. Limestone is at a depth of 13 to 62 inches.

A field review of this site shows the soil to be more of a heavy clay loam than a gravelly loam texture. This soil type has potential for slumping and slope failure.

The soils encountered in Alternative C - Non-Wilderness Access are as follows:
Lundy-rock outcrop complex - This map unit is about 60% Lundy, very cobbly loam. However the components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used. A description of this soil type is found in Appendix E.

Xeric Torriorthents - Rock outcrop complex - This soil type occurs on the south facing slopes where, with Alternative C, the road construction would occur. This soil type is described as follows: Slopes are 30 to 70 percent and are medium in length and convex. In most areas, the present vegetation is mainly a sparse cover of shrubs. This unit is about 60 percent Xeric Torriorthents, 30 to 70 percent slopes, and 20 percent rock outcrop. The Xeric Torriorthents is on side slopes, and rock outcrop is on ridges and escarpments. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used. A description of this soil type is found in Appendix E.

SOCIAL ECONOMICS

The economy of Juab County is based on service, agricultural industries, and mining. Nephi is the closest population center to the project and is the County seat. It is a full-service community with a population of approximately 2700. Nephi's economy is also based on a service sector, which depends heavily on tourism associated with Interstate 15, and agriculture industries. The service-related industries have been in a depressed state for the last 8 to 10 years as a result of completing the construction of the Interstate. The Interstate has re-routed traffic around the community, rather than through the center of town. It also facilitated travel for local shoppers to journey north to the shopping centers of Provo, Orem, and Salt Lake City. The agriculture industry has been a fairly stable component of Nephi and the county economic base. Presently there are several mining operations that contribute to the economy and employment of Juab County.

Social values of the project area are linked to public land and wilderness designation. This area is not heavily used from a recreation standpoint, and no recreation improvements or facilities exist within the project bounds. The County does not currently generate a substantial economic gain from public land use within the project area. The water that flows in Gardner Canyon has economic significance to the water users who depend upon it for agricultural and culinary uses.

WILDERNESS

The proposed project area is situated within the boundaries of the Mount Nebo Wilderness. The area was designated as wilderness in 1984, under the Utah Wilderness Bill. An area of wilderness is defined in Sec. 2(c) of the Wilderness Act (16 U.S.C. 1131-1136) as: (c) A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man, himself, is a visitor who does not remain. An area of wilderness is further defined to mean an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Management emphasis is to provide for the protection and perpetuation of essentially natural biophysical conditions which make up the resource of wilderness. Wilderness is to be managed as one resource rather than a series of separate resources. In wilderness areas where the establishing legislation permits resource uses and activities that are nonconforming exceptions to the definition of wilderness as described in the Wilderness Act, these nonconforming uses and activities should be managed to minimize their effect on the wilderness resource.

There are some key wilderness features that need to be considered in analysis of proposed actions within wilderness. These features are summarized below:

a. Natural integrity, apparent naturalness and remoteness relate to the physical setting of an area. Natural integrity is the extent to which long-term ecological processes are intact and operating. Impacts to natural integrity are measured by the presence and magnitude of human induced change to an area. Such impacts include physical developments (e.g. roads, utility-rights-of way, fences, lookouts, cabins), recreation developments, domestic livestock grazing, mineral developments, wildlife/fisheries management activities, vegetative manipulation, and fire suppression activities.

b. Apparent naturalness means that the environment looks natural to most people using the area. It is a measure of importance of visitors' perceptions of human impacts to the area. Even though some of the long-term ecological processes of an area may have been interrupted, the landscape of the area generally appears to be affected by the forces of nature. If the landscape has been modified by human activity, the evidence is not obvious to the casual observer, or it is disappearing due to natural processes.

c. Remoteness is a perceived condition of being secluded, inaccessible, and out of the way. The physical factors that can create "remote" settings include topography, vegetative screening,

distance from human impacts such as roads and logging operations (sight and sound), and difficulty of travel. A user's sense of remoteness in an area is also influenced by the presence or absence of roads, their condition, and whether they are open to motorized vehicles.

d. Solitude is a personal, subjective value defined as isolation from the sight, sound and presence of others, and the developments of man. Common indicators of solitude are numbers of individuals or parties one may expect to encounter in an area during a day, or the number of parties camped within sight and sound of other visitors. A primitive recreation experience includes the opportunity to experience solitude, a sense of remoteness, closeness to nature, serenity, and spirit of adventure through the application of woodsmen skills in an environment that offers a high degree of challenge and risk. Such opportunities are normally found in Primitive (P) and Semi-Primitive Non-Motorized (SPNM) classes of the Recreation Opportunity Spectrum (ROS). Descriptions of ROS classes and the physical, social, and managerial environmental criteria for each can be found in the Recreation Opportunity Spectrum (ROS) Users Guide (U.S. Department of Agriculture, Forest Service; 1982). Impacts related to primitive recreation experiences are normally expressed in changes to the physical setting, activities occurring in the area, or to the social experiences of users.

e. Special features are those unique geological, biological, ecological, cultural, or scenic features that may be located in wilderness areas. Unique fish and wildlife species, unique plants or plant communities, outstanding landscape features such as unique rock formations, and significant cultural resource sites are some of the items that should be considered when analyzing this element.

The area of wilderness where the proposed project is located has a history of mining activity. Past activity has left approximately 2 miles of existing roads within Gardner Canyon drainage and several excavated areas. The presence of past activity is still evident and currently affects wilderness quality. The visual quality objective of "preservation" is currently not being met.

CHAPTER IV - ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Environmental consequences (also referred to as effects or impacts) occur when ecosystems are changed, through management actions or inaction. Each alternative would result in different environmental consequences. With the exception of Alternative A, the "No Action" Alternative, all alternatives presented would cause unavoidable impact to the surface resource. Discussion of environmental consequences provides a basis for comparison of the alternatives presented in Chapter II. Alternative A, the "No Action" or no change alternative, provides a common baseline for comparison of Alternatives B and C.

Determining the environmental consequences of the alternatives is somewhat complicated by the fact that "reasonable" surface protection requirements have not been determined yet. The Forest Service's interpretation of reasonable may not be the same as the proponent's. Because of the split estate, discrepancies of this sort would be resolved through the legal system.

Since the Forest Service cannot determine the definition of reasonable at this time, two future scenarios are displayed to portray the potential range of consequences – a worst case scenario, and a mitigation scenario. The worst case scenario would result from minimal mine operation direction and reclamation requirements. There will be some mitigation requirements per State regulations that will be applied under the worst case scenario and they are displayed. The mitigation scenario would result from implementation of the Forest Service's recommended mine operation direction and reclamation requirements. The mitigation scenario applies to both Alternatives B and C. Each scenario is described for each resource area.

VISUAL RESOURCES

The issues associated with this resource are tied to the adverse effects the project will have on the area's aesthetic and visual aspect. Specifically, the impacts to visuals would come from road construction, surface disturbance from mining activity, and alteration of existing vegetative cover. Impacts to the visual resources will reduce the aesthetic value of the area.

CONSEQUENCES OF EACH ALTERNATIVE ON THE VISUAL RESOURCES

Baseline for Comparison: **Alternative A - No Action**

There would be no change in the existing visual quality of the area. Visual resources would not be impacted or impaired. The visual quality objective is preservation but with historical activities, the existing visual quality is partial retention or modification.

WORST CASE SCENARIO

Alternative B

There would be a long term disturbance of approximately 60 acres in and around the proposed pit area. The access roads associated with the operation would cause long-term disturbance

to the visual resource. An estimated 2 acres would be disturbed to construct the main access road and 1 acre would be disturbed with the 1/2 mile of road that provides access to the top of the ore body. Provisions in the special use permit would require obliteration of existing permitted roads after use.

Surface disturbances associated with the pit area could be seen from as far away as fifteen miles. The main access road is within wilderness but it is located in a draw, and therefore not as predominant from multiple vantage points. It would be visible from nearly any point in Gardner Canyon within the wilderness, as would the mined area. Reclamation work would be ongoing, but the duration of the impacts would vary depending on the scope of the mining operation. It is conceivable that an ongoing mining operation could last 20-30 years. The resulting visual quality would be maximum modification on the areas impacted by mining activity. Following termination of operations, impacts from the mining would permanently alter the visual characteristics and remain visually dominant.

Alternative C

There would be a long-term disturbance of approximately 60 acres in the proposed pit area. In addition, access roads associated with the operation would cause long-term disturbance to the visual resource. This alternative would generate 2 1/4 miles of main access road across private ground, portions of which would be visible from the wilderness, as well as Interstate 15 and the Town of Nephi. An additional 1/2 mile of access road would be constructed within wilderness. An estimated 4 acres of ground disturbance would occur when constructing the main access road, and 1 acre would be disturbed with the 1/2 mile road that provides access to the bottom of the ore body. However, two acres of visual disturbance within wilderness would not occur. During mining operations the visual quality would be greatly modified.

Again, the timing and duration of the visual impacts would vary with the scope of the mining operation. Reclamation would be ongoing as completion of the operation occurred and need for the disturbed area diminished. The mining could last 20-30 years. Following termination of operations, mining impacts would remain visually dominant over the original characteristic landscape.

Under both Alternatives B and C, the visual quality objective of preservation would not be met and would likely even fall below the modification level. The visual impacts would be seen from a variety of viewpoints in the foreground, as well as from Interstate 15, Highway 91, and Highway 132. The long-term visual quality would be maximum modification.

Mitigation for Alternatives B and C

Incorporate a Visual Management section in the Reclamation Plan which would result in:

- Assurance that timely reclamation occurs and that reclamation is ongoing and incorporates visual management needs into the Large Mining Operation Permit which must be issued by the State of Utah. The plan would call for re-establishment of natural vegetation.

- Incorporation of prudent design and operation procedures that would stabilize cut slopes and minimize the amount of disturbed area at any one time.

MITIGATION SCENARIO (WITH FOREST SERVICE DETERMINED REQUIREMENTS).

There would be long term disturbances as described above, for the life of the mine. Reclamation following shut down would shape, stabilize, revegetate, and otherwise treat the land affected by this operation. Such operations would return the land, within a reasonable amount of time, to a stable ecological condition compatible with past visual characteristics. Removal of the ore body would alter the existing terrain and prevent duplication of present conditions. It would also take time for vegetation to return to existing conditions. Visual impacts could last for 40-60 years. The resulting visual quality would be partial retention.

CULTURAL RESOURCES

CONSEQUENCES OF EACH ALTERNATIVE ON THE CULTURAL RESOURCES

Cultural resources will not be adversely affected regardless of the alternative implemented. There are no known cultural resources on National Forest System lands associated with the project area. The Utah State Historical Preservation Society will protect cultural resources on other lands.

HYDROLOGIC RESOURCES

The issues associated with hydrologic resources revolve around wetlands, riparian areas, floodplains, and the water resources. Surface water and ground water quality could be affected by construction of other access roads, as well as mining development. Watersheds are extremely important with respect to sediment production, as they are key to water quality and production claimed under existing water rights. Potential toxic runoff associated with mining may also impact wildlife and water users. There are no planned activities within designated wetlands or riparian areas in general, but there is still concern over potential impacts. The amount of acreage disturbance in vegetation, soils, and aquatic areas will determine the impacts.

CONSEQUENCES OF EACH ALTERNATIVE ON THE HYDROLOGIC RESOURCES

Baseline for Comparison: Alternative A - No Action

There would be no change in hydrologic resources. The existing roads are not causing a substantial contribution to sedimentation, but recent exploration activity (see page I-3) has the potential to increase sedimentation significantly.

The project is located in an area that has considerable natural land instability which has been previously altered by past management and development practices. The channel of lower Gardner Canyon is dried up for most of the year by the piping of Gardner Creek, in it's entirety, to ranches a considerable distance below the Forest boundary. This section of channel still shows the effects of flash flooding that occurred many years ago as a result of deteriorated watershed conditions caused by overgrazing. This situation was aggravated by the extreme runoff events and landslides that occurred during 1983 and 1984.

No scientific information has been collected on water quality in Gardner Creek, but it is known to deteriorate during periods of heavy thunderstorm activity. At such times, surface runoff and sediment from the large natural slide that originated on a portion of the said

lands in 1983 enters the stream, and is readily observable downstream at the point of use. This problem was extremely evident during the period immediately following the slide event in 1983 and 1984, according to Jack Howard of the Gardner Canyon Irrigation Company.

In addition to the considerable natural land movement that has occurred in the drainage, several cut and fill failures have occurred on existing mining and exploratory routes in the vicinity of the project proposal.

Without the impacts of additional mining activity, it is estimated that the frequency for the occurrence of natural mass failure is on the order of about 2-3%. This estimate is based on the supposition that landslide events on natural slopes are climaticly driven and that the events that caused the 1983 floods and landslides occur once every 35 to 50 years.

WORST CASE SCENARIO

Action Alternatives (B and C)

The following consequences are common to both Alternatives B and C.

Surface Water

The construction and development of a 60-acre pit would result in the following effects:

a. Increased sediment would be generated, delivered into surface streams, and deposited in some areas downstream.

b. Increased surface runoff would occur.

c. Increased probability of mass slope failure.

d. Potential impact to riparian areas and wetlands.

e. Water quality degradation.

The potential effects are described as follows:

The action alternatives would generate increased sediment during periods of precipitation and runoff. The area to be mined has soils which fall in a "C" hydrologic soil group. For this soil type, where mining activity has impacted the entire area, surface runoff was calculated for a 100-year, 24-hour storm with 3.00 inches of precipitation. This type of event, which is a worst-case scenario, would generate an increased estimated 7.94 acre-feet of water which would flow from the disturbed area. Such flooding would generally contain about one-third water and two-thirds soil, rock, and other debris. The total volume of material would be about 25,620 cubic yards. Erosion control measures would not prevent this material from being deposited somewhere between the end of the road and the alluvial fan below the mouth of Gardner Canyon.

The amount of increased sediment generated from the operation would be dependent upon the type of storm and the amount of disturbed area at the time of the storm. During the

life of the operation, it is likely that a high intensity storm would occur, generating flooding and deposition of sediment in Gardner Canyon.

The action alternatives would increase the surface acres which are void of vegetation. Mining activity would create steep open slopes which would increase surface runoff. The roads constructed in association with the operation would also serve as compacted surfaces which would minimize infiltration and channel water off the hillside. The high-intensity, longer duration storms would generate high volumes of water which would not be absorbed by the soil. The professional opinion of the U.S.D.A. Forest Service hydrologist (Uinta National Forest) is that such a storm would most likely produce mass failure. With a 100-year, 24-hour storm which would produce 3.0 inches of rain, surface runoff would be expected to increase from .03 inches on the vegetated portion to 1.90 inches on the disturbed portion of the hillside.

The most significant effects would be on the stability of the surrounding slopes, with an increased likelihood of slope failure. The saturated conditions during 1983 and 1984 caused a landslide to occur on this same hillside, partially within the confines of the Little Doctor Claim. When surface disturbance removes the vegetation cover from the soil types found in the project area, erosion is accelerated and the potential for landslides greatly increases. There is no way to secure or guarantee that mass failure of the slope above Gardner Canyon would not occur once mining and access roads were developed. The mining operation would displace soil and vegetation which, during periods of precipitation or snowmelt, could trigger mass failure of the hillside. The mass movement could come from within the mined area or roaded slopes adjacent to it. The results of such failure would impact water quality, wetlands, visual characteristics of the landscape, and the existing vegetation. The landslide of 83-84 is still visible today and impacts to the above mentioned resources are still in effect.

The quantity of surface water available to the Gardner Canyon Irrigation Company would not be reduced and there could be some increase as a result of surface runoff. The quality of the water in the intermittent channel below the mining area would decrease as a result of increased sediment associated with increased surface runoff. There would also be an increase of fugitive dust generated from the operation. The biggest impact to the existing water rights would occur if a landslide should block or enter the Gardner Canyon channel and disrupt the flow of water to the users. There are no guarantees that once vegetation removal and surface disturbances occur on these slopes, mass failure would not also occur. It is estimated that there is a 50% chance that mass failure would occur at some time on some portion of the disturbed area.

Impacts to the water flowing in Gardner Canyon would be confined to the indirect effects associated with fugitive dust, erosion, and a mass failure. The stream course is not directly impacted by the mining operation. The activity will be occurring on the ridge above the stream course. Increased erosion on the disturbed areas of the mine could flow through the vegetation on the ridge to the stream during periods of excessive runoff. If a mass failure was to occur, water quality in the stream would be deteriorated for a period of time. The amount of sediment and duration of impacts would depend upon the size of the slope failure. It is difficult to predict slope failure, but it is estimated that there is a 20% chance of a slope failure affecting the water users of Gardner Canyon Irrigation Company.

Riparian Areas and Wetlands

A portion of the area included in the established mineral rights covers land designated as wetlands. Based on the location of the ore body, no project activity is proposed for this wetland area. Accordingly, no wetlands or riparian areas would be lost under either alternative unless a landslide enters the canyon. An occurrence of this type could impact between 400-1000 feet of wetland area of the canyon (.03 - .08 of an acre). The exact size of, or potential for, a landslide is impossible to predict. Under all alternatives, mitigation requirements will assure that no net loss of wetlands will occur, except from the possibility of a landslide. There is little opportunity to mitigate for mass failure in the vicinity of the proposed mine. A small (1 acre) area of riparian vegetation would be impacted to create a parking and loading area near the northwest edge of the subject lands in the bottom of Gardner Canyon.

Ground Water

There would be no effects to ground water under either action alternative. There are no springs within the project area. The pit would be constructed on a hill above ground water levels. The project will not cause toxic runoff since no chemicals are proposed for the operation and petroleum products would be kept in containers on site.

The fact that the "pit" would be constructed on a steep hillside eliminates the traditional bowl effect. The result would be minimal interception and ponding of surface water on the floor of the pit. There would be some water and runoff trapped in areas of the pit as mining creates compacted surfaces and depressions.

ALTERNATIVE SPECIFIC IMPACTS FOR HYDROLOGIC RESOURCES

Alternative B

In addition to the above mentioned impacts, this alternative would disturb an additional 2-3 acres by constructing approximately one mile of primary access road and 1/2 mile of work road to access the ore body. These access roads would increase sediment and surface runoff. Primary access would be developed by improving an existing low standard road. Approximately 1.3 acres of floodplain would be disturbed by access road construction and the development of a work area.

Alternative C

In addition to the impacts associated with the pit construction and mining, an additional 4-5 acres would be disturbed by constructing approximately 2.25 miles of primary access road and 1/2 mile of work road to access the ore body. Primary access would be developed by constructing a new road across steep side-hills on state and private ground. This new road construction would generate additional quantities of sediment and increase the potential for slope failure. Water quality impacts would occur in an additional drainage (Red Canyon). Approximately .3 acres of floodplain would be disturbed in Gardner Canyon for construction of a working area. The access route in Red Canyon could cross the water transmission line which carries irrigation water from Rowley Spring to Nephi City, but any possible impacts could be mitigated.

Mitigation for Alternatives B and C

a. Implement erosion control measures into the Reclamation Plan, Operating Plan, road access permit from the Forest Service, and mine permit from the State of Utah. This would include, but not be limited to: prompt reclamation of disturbed sites including interim reclamation, proper location of roads, revegetation and stabilization of cut banks and fill slopes, water runoff control measures on roads and areas of surface disturbance to minimize sediment loading downstream, and adequate seasonal reclamation.

b. Require a hazardous spill plan.

c. Implement a water quality monitoring program into the Plan of Operations. Plan would include measures to ensure that water quality at existing collection location would not be negatively impacted.

d. Maintain adequate performance bonding to assure that erosion control needs could be met. This would include reclamation, should a mass failure occur.

e. Prohibit the placement of mined material or spoil in the confines of the Gardner Canyon channel, and protect this channel from other surface disturbing activities.

f. Require engineering structural stability analysis to determine the maximum allowable height of pit walls.

MITIGATION SCENARIO

Successful implementation of the above mentioned surface protection and reclamation requirements would not eliminate the potential effects described above, but the probability for detrimental effects would be reduced. If such impacts should occur, reclamation, slope stabilization, and other mitigations would be provided for. This would reduce the potential for long term impacts. With these reclamation requirements, it is more likely that a much smaller area would be mined (costs associated with mitigation requirements would reduce the amount of area that could be economically mined). Headwalls would be limited and a minimum bench width would be identified to match reclamation and stabilization needs. Reducing a headwall height from 15 feet to 10 feet could reduce the amount of ore removed by 30-35%. Surface disturbance would be confined to 35-40 acres.

AIR QUALITY

The issues focus on the proposed project's effects on air quality and how well those effects are monitored and regulated. The issues are tied to increased dust and combustion emissions associated with mining.

CONSEQUENCES OF EACH ALTERNATIVE ON THE AIR QUALITY RESOURCE

Under any alternative proposed, the air quality would not be significantly affected. The type of activity in the action alternatives would generate dust particles from truck traffic, blasting, and equipment operation associated with mining activity. The amount of dust generated would vary with the scope of the operation. It is estimated that the affected area

would be localized and the area impacted would not exceed a distance of one-half mile from the source of fugitive dust. Alternatives B and C would require a permit from the State of Utah which would assure the operation would conform to the required air quality standards. Both Alternatives B and C would generate dust and air pollutants which currently do not exist in the area. Tail pipe emissions should be minimal under either alternative. Mitigation measures and the scope of the proposed operation would minimize impacts to air quality.

Mitigation for Alternatives B and C

a. Require appropriate State air quality permits and monitoring requirements as part of Plan of Operation. The construction and operation of the mine would be subject to the Air Conservation Rules of the Air Quality Board and the Utah Department of Environmental Quality - Division of Air Quality.

b. Implement appropriate dust suppression measures to reduce fugitive dust problems.

WILDLIFE

People are concerned that the proposed project will affect wildlife populations and/or habitat, or more specifically, big game winter range. Deer and elk displacement from man's presence and the amount of habitat (acres) disturbed constitute the critical issues.

CONSEQUENCES OF EACH ALTERNATIVE ON THE WILDLIFE RESOURCE

Baseline for Comparison: Alternative A - No Action

No impacts to wildlife habitat and no effects upon wildlife populations.

WORST CASE SCENARIO

Alternative B

Approximately 60 acres of wildlife habitat would be impacted through pit construction and an additional 2-3 acres of disturbance from access road development outside of the pit area. An area of individual disturbance would also be associated with the project. Noise and human activity associated with the project would displace wildlife species from the operating area. This disturbance would vary with species and the scope of the operation; however, an estimated displacement of 1/4 mile from the project area is calculated for most species. Approximately 500 acres of wildlife habitat would be lost due to displacement of animals from the project activity. It is not anticipated that there would be any adverse impacts to golden eagles which nest about 1 mile to the north and south of the proposed project.

The greatest impacts would be on deer and elk populations from loss of winter range, and to small mammals and reptiles that would be killed or displaced by the construction activity. Under this alternative, about 50 acres of the existing habitat would be irretrievably lost, as complete reclamation of the pit area would be impossible. There would be a permanent reduction in watershed condition and increases in surface runoff and erosion on a long-term

basis. The majority of the impacts to wildlife would be long-term, unless the life of the project were much shorter than anticipated.

Alternative C

The same impacts as described in Alternative B would occur with the exception that an additional 4-5 acres of disturbance would occur on state and private land due to access development. A greater area of displacement would be created, including Red Canyon drainage, as a result of constructing this access route. However, the lower reaches of Gardner Canyon and approximately 2 acres of wilderness would not be directly impacted. The amount of acres initially disturbed would be approximately 70 percent greater than Alternative B due to the different access point. As with Alternative B, about 50 acres of the existing habitat would be unavoidably lost, as complete reclamation of the pit area would be impossible. The Division of Wildlife Resources is opposed to this alternative because it would have a detrimental effect to State Wildlife lands.

Mitigation for Alternatives B and C

a. Seasonal shut down from November 15 to May 15 to protect use of big game winter range.

b. Reclamation planning to include goals of wildlife habitat restoration.

MITIGATION SCENARIO

The mitigation for wildlife habitat would require minimal loss of existing habitat following reclamation. Off-site mitigation would be required if total reclamation is impossible. Other surface protection measures would minimize the amount of disturbance; however, total reclamation of the mined area to pre-mined condition would not be feasible. Stabilized high walls would not be revegetated and the benched pit would not duplicate existing habitat. Even with successful implementation of Forest Service proposed reclamation requirements, as many as 20 acres of habitat could be altered and unavoidably lost for certain species.

VEGETATION RESOURCES

Vegetation resources are important in that they support other components of environmental quality such as wildlife, water quality, and visual quality. Concerns with the proposed project focus on the impacts to this resource and the type of reclamation and revegetation that will occur. Impacts are derived from the amount of acres disturbed.

CONSEQUENCES OF EACH ALTERNATIVE ON THE VEGETATION RESOURCE

Evaluation of environmental consequences for vegetation resources is based on acres of vegetation lost. The consequences of implementing any of the alternatives assumes successful reclamation on those impacts listed as short-term, and that proposed reclamation and subsequent secondary succession would provide vegetation communities representative of potential community types. With the exception of the No-Action Alternative (A) the pit construction represents a common long-term impact through removal of existing ground vegetation. In addition, both alternatives represent both short- and long-term losses of vegetation. Based

on general survey data, there are no known occurrences of threatened or endangered plant species within the scope of any of the alternatives.

Baseline for Comparison: Alternative A - No Action

There would be no impact to vegetation.

WORST CASE SCENARIO

Alternative B

This alternative would disturb approximately 60 acres of vegetation, over time, by construction of the open pit to remove the ore. There would be an additional 2-3 acres of disturbance for access roads (no other surface disturbing activities would be permitted outside the pit area). There would be some short-term loss of vegetation as disturbed areas are reclaimed. There would be long-term losses of vegetation associated with the duration of the operation. The amount of acres disturbed at any given time, as well as the amount of acres which would be a long-term disturbance, would be entirely dependent upon the future development of the mine and the amount of economically recoverable ore present within the mineral right boundaries. The life of the mine could be in excess of 30 years. Under this alternative, a portion of the vegetation would be unavoidably lost, as complete reclamation of the pit area would be impossible. The exact quantity of unavoidably lost acreage is not known, as the exact dimensions and economic feasibility of mining the ore body are not known. However, it is estimated that if the entire ore body were mined, approximately 50 acres would not be reclaimable. Vegetation loss as a result of mass failure associated with surface disturbance may or may not occur. It is possible that as much as 20-30 acres of additional vegetation would be impacted should mass failure occur.

Alternative C

This alternative would disturb the same amount of acres for pit construction. In addition, there would be 4-5 acres of disturbance on state and private land for access roads. The same variables surrounding the amount and timing of disturbance would also apply. Under this alternative there would be about 70 percent more initial acres of vegetation disturbed. The amount of unavoidable vegetation loss would be the same as Alternative B (50 acres). Disturbance outside of the pit area (access roads) would be reclaimable.

Under both Alternatives B and C, revegetation would take 20-25 years to reproduce pre-disturbed conditions. Reclamation would initially produce satisfactory ecological conditions, but in the form of grasses and some seedlings. Subsequent secondary succession from natural regeneration would eventually occur on all of the reclaimable acres.

MITIGATION SCENARIO

An approved reclamation plan would control pit design and allow replacement of native vegetation on the benches and other disturbed areas. Surface disturbance would be limited to an estimated 35-40 acres. Even with successful implementation of Forest Service proposed reclamation requirements,

as many as 20 acres would remain altered from current conditions. It would also take 20-25 years beyond the end of the operation for the vegetation to be fully reestablished in disturbed areas.

SOIL RESOURCES

The proposed mining operation raises questions about the amount and effects of resultant soil erosion. Issues were also raised about the ability to stabilize and reclaim resources during and following the proposed operation. There is concern that continued mining of the hillside would result in additional slumping and mass failure.

CONSEQUENCES OF EACH ALTERNATIVE ON THE SOIL RESOURCE

WORST CASE SCENARIO

Impacts of implementation of the action alternatives (Alternative B or Alternative C) upon soil resources were evaluated based on reclamation potential. The following impacts to soil resources were considered: acres disturbed, non-reclaimable acres, and available potential salvageable growth medium. The submitted pit design calls for bottom to top excavation, which would make it more costly to replace the topsoil. However, the stockpiling and replacement of topsoil requirements throughout the life of the project would not differ for any action alternative. The impacts to the surface would be initially greater in Alternative C. Total acres disturbed over the life of the mine is as follows:

Alternative A	No Action	0 acres disturbed
Alternative B	Proposed Plan of Operation	63 acres disturbed
Alternative C	Non-wilderness Access	65 acres disturbed

Baseline for Comparison: Alternative A - No Action

There would be no impacts to the soil resource.

WORST CASE SCENARIO

Alternative B

It is estimated that 50 acres would be non-reclaimable over the life of the project. Soil loss to erosion and mass failure of the slope has not been calculated. It is likely, considering the soil types and historic activity of the project area, that with the proposed surface disturbances planned in both Alternatives B and C, mass stability failure would occur. This disturbance would impact as much as 20-30 acres of soil.

Despite mitigation measures, some accelerated erosion would occur from the road cuts, fills, and from mining operations where soil exposure and steeper slopes would be created (see section on hydrologic resources). Approximately 2-3 acres of surface disturbance for roads would occur under this alternative.

Alternative C

It is estimated that 50 acres would be non-reclaimable over the life of the project. Soil erosion and mass failure of the slope have not been calculated, but the anticipated impacts would be the same as Alternative B. Accelerated erosion would be greater from the road cuts and fills as approximately 4-5 acres of surface disturbance would occur on steeper slopes on state and private lands. An additional drainage (Red Canyon) would be impacted.

Mitigation for Alternatives B and C

a. Road construction on National Forest System land must receive prior Forest Service approval to assure erosion control measures were incorporated into the design.

b. Seasonal shutdown would include installation of necessary erosion control measures.

c. An approved reclamation plan would be developed by the owner/operator prior to commencement of surface-disturbing activities. Soil protection measures would include the following provisions:

   Topsoil which is one inch or greater in depth and/or other material (sand, silt, clay with 50 percent or less rock fragments, free of toxic chemical) suitable for the establishment of vegetation would be scraped off of operating areas. This material would be kept separate from general overburden, stockpiled at least 10 feet away from stream courses and, in all cases, out of the normal floodplain.

   All mine waste, stockpiled material, and areas of surface disturbance would have stable slopes with appropriate erosion control measures. This material would have to be placed within the confines of the established mineral property or be removed from site.

   All disturbed soil, general overburden, and/or material processed during mining operations (that would not be disturbed again) would be reclaimed as described in the plan as soon as possible. Berms would be constructed around disturbed areas, as needed, to retard erosion.

   Reclamation would be ongoing to minimize amount of disturbed ground.

   All stockpiled topsoil and/or other suitable fines would be evenly spread over disturbed areas once the operation has been completed or in an ongoing restoration program. General overburden and material processed in mining would be replaced and graded to approximate pre-existing site contour where feasible and reasonable. On steeper locations, headwall height and benching would be regulated and required.

d. Performance assurity would be obtained and retained to guarantee reclamation and maintenance of soil resource.

MITIGATION SCENARIO

Increased erosion would occur under both action alternatives as a result of creating surface disturbances. Successful implementation of road design standards and erosion control measures would

minimize impacts. Soil loss from erosion has not been calculated. Controlled pit design and an approved reclamation plan would allow replacement of topsoil on benches and the establishment of vegetation to reduce long term impacts. The same amount of acres could be disturbed; however, it is estimated that surface disturbance would be reduced and occur on 35-40 acres. Even with successful implementation of Forest Service proposed reclamation requirements, as many as 20 acres would remain altered from existing conditions. Stabilized cut slopes and benches would remain around the pit. Mass failure and/or slumping would generate short term impacts. Reclamation plans and bonding would assure rehabilitation and stabilization of soil resources.

SOCIAL IMPACTS

The social effects of this proposal are two-fold. There is an effect on society's views of what should or should not occur within designated wilderness. There are also social effects on the surrounding area and community of Nephi.

Social values of "wilderness" and wilderness designated areas are broad and sometimes controversial. However, the definition of wilderness in the majority of people's minds is captured in a series of statements in the Wilderness Act:

a. An area where the earth and its community of life are untrammeled by man.

b. An area where man himself is a visitor who does not remain.

c. An area of undeveloped Federal land retaining its primeval character and influence.

d. Without permanent improvements or human habitation.

e. Protected and managed so as to preserve its natural conditions.

f. An area which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable.

g. An area which has outstanding opportunities for solitude or a primitive unconfined type of recreation.

Based on this social perception of wilderness, Alternatives B and C would violate the majority of society's wilderness values. Alternative A - No Action would not affect the wilderness characteristics.

In a worst case scenario, long term impacts would occur on the social values of wilderness. As many as 50 acres could be unavoidably lost. Even with "reasonable" surface protection measures, there would be the short term effects and long term impacts to wilderness as a result of as many as 20 acres showing evidence of the imprint of man's activities.

Social impacts on the surrounding area and community would not occur under Alternative A. Alternatives B and C would have minimal effects. The current proposal as submitted by the proponent is small scale, employing approximately 3-5 people. There would be no great influx of people to the community as a result of implementing either alternative. There would be the possibility of a larger-scale operation associated with this project site, should economics and markets

dictate. However, based on a similar gypsum mining operation in the area, the prospects of a large operation are not great at this time.

ECONOMICS

Issues revolve around effects the proposed project would have on local county socio-economics.

CONSEQUENCES OF EACH ALTERNATIVE ON THE ECONOMICS OF THE AREA

The economic impacts can only be calculated based on the information available. Alternative A, No Action, would not generate any mine-related income. The potential increase in recreation income to the area as a result of not impacting Gardner Canyon has been estimated to be minimal. However, the ability to calculate a true dollar value based on the aesthetic value of a landscape has not been perfected and is difficult at best. The total visual quality of the mountain landscape of which Gardner Canyon is a part contributes to the aesthetic value of the area and adds to the overall attractiveness. Current recreation income to the town of Nephi from activities in Gardner Canyon is small.

Alternatives B and C would not significantly vary in economic benefits to either the state or county. The amount of ore to be mined in any given year should be relatively the same. The longer haul distance in Alternative C would reduce the economic return, but aside from the increased up-front construction costs, this would not affect the overall economics of the operation.

The proponent's proposed operation should be able to produce about 100 tons of ore per operating day, utilizing a crew of 3-5 people. He projected a yearly maximum production of 100,000 tons. This would require additional haul trucks, drivers, and some additional workers at the pit. Depending on market values of gypsum and contracts secured, a labor force ranging from 3 to as high as 20 people could be employed as part of the mining operation. Big game winter range concerns and mitigation would limit mining activity to a 6-month period. The most probable production rate of the resource is 20,000 - 30,000 tons per year.

The life of the mine is also speculative. The exact quantities of ore are not known. A U.S. Geological survey estimated about 270,000 tons of ore to be present. The proponent calculates significantly more tonage. Depending on production rates and the amount of ore present on site, the operation could run for 30 years or more.

The value of gypsum is variable, depending upon grade and usage. Current plans would be to sell the gypsum to the Ashgrove Cement plant about 45 miles south-west of Nephi, near Leamington. The present market value of gypsum at this location is $10.00-$15.00 per ton. The value of gypsum, crushed and ready for transportation at the mine site, is currently around $8.00 per ton.

The amount of revenue to the local economy would vary with the scope of the project. For the type of operation proposed, the following economic benefits would occur:

For every ton of gypsum mined, the following revenues would be generated (based on data collected 8/91):

a. $10.00-$15.00 market value.

b. $2.00-$3.00 in wages for mine labor.

c. $0.55-$1.00 in state income tax.

d. $0.09-$0.13 in sales tax.

e. $0.05-$0.10 in mineral depletion tax.

f. $3.00-$4.00 in transportation - wages and truck costs.

g. $1.50-$3.00 in equipment costs at mine site.

The tax revenues for the project would be as follows:

Sales Tax - 6 percent, applied to equipment and material purchased in association with the project, 1% would be returned to local government.

State Income Tax - 7.2 percent, applied to wages and earnings associated with the project.

Property Tax - 1.5 percent +/- would be applied regardless of alternative selected.

In addition to these taxes, federal income taxes would apply. Secondary tax benefits to the various levels of government through the business community are not estimated, but would be substantially affected by the extent of project and scope of operation.

CONSEQUENCES TO ECONOMICS WITH IMPLEMENTATION OF FOREST SERVICE RECLAMATION REQUIREMENTS

The successful implementation mitigation required by the Forest Service would have economic impacts on the proponent/operation. The costs of meeting reclamation requirements would dictate the amount of ore that could be economically mined. More stringent and costly mitigation would reduce the profitability of said lands. Higher bonding requirements also would have a negative economic impact on the proponent. Restrictions on benches and highwalls would reduce the amount of ore that could be removed or increase operating costs.

WILDERNESS

The fact that the proposed project is located within a designated wilderness area generates a series of issues pertaining to wilderness quality and impacts to wilderness characteristics. Wilderness is a resource unto itself. This resource includes specific characteristics of other resources such as soil, water, visual quality, and wildlife, as described in the Wilderness Act. Any impact to those resources directly impacts the wilderness resource.

CONSEQUENCES OF EACH ALTERNATIVE ON THE WILDERNESS RESOURCE

Baseline for Comparison: Alternative A - No Action

There would be no impacts to the wilderness resource. Alternative A will not generate any new effects upon natural integrity, apparent naturalness, remoteness, solitude, and special features. Past activities have created existing conditions, which are currently affecting these features. Existing roads and mining activity are reducing natural integrity and naturalness. The proposed project area has topography that allows for a moderate amount of remoteness and solitude. Under this alternative, time and the continuation of long term ecological processes would continue to enhance these features.

WORST CASE SCENARIO

Alternative B

This alternative would allow reconstruction and improvement of approximately one mile of existing road and construction of an estimated 1/2 mile of new access road. It would also create a surface disturbance of 63 acres, and generate impacts such as noise, visual change, and other developed conditions which directly affect the wilderness resource.

The natural integrity, apparent naturalness, and remoteness of the area will be eliminated during operations and for a period of 20-30 years after completion of activities. Solitude will be impacted during operations. The special features of the area will be affected by the surface disturbing activities, as will be visually evident.

Alternative C

This alternative would impact the wilderness resource through the surface disturbance of 61 acres (within wilderness) associated with pit construction and mining activity. Non-wilderness access would eliminate the need to re-open the mile of existing road through wilderness, up Gardner Canyon, but would require 2.25 miles of new road construction adjacent to the wilderness, which would have an indirect effect on wilderness. Access roads within wilderness would still be constructed around the pit to facilitate the proponent's full use of his property right. A true wilderness environment would not be maintained under any action alternative.

Natural integrity, apparent natural, and remoteness features will be lost from this area, despite the elimination of access up Gardner Canyon. It is difficult to determine if any reduction in these characteristics would occur as a result of changing the road access location, because the mining activity will still occur. Solitude will be lost during periods of operation. Impacts to special features, mainly scenic features, will be greatest under this alternative as a result of constructing a new road across an exposed face of the mountain. This impact will be located outside of the designated wilderness area, but it will still have negative impacts on the Forest resources, including wilderness and scenic landscape features.

As mentioned under social impacts, regardless of mitigation, the action alternatives would have short term impacts on the wilderness resource. Long term impacts would also occur, but under a worst case scenario, as many as 50 acres will be unreclaimable. With the ability to successfully

impose surface protection regulations more in line with wilderness protection, about 20 acres would continue to show evidence of mining activity. These acres would be stabilized and revegetated, but not returned to their pre-mining condition. It will take anywhere from 20-30 years after reclamation to allow the long term ecological processes to fully eliminate human-induced change to the area.

SIGNIFICANT IMPACTS

NEPA mandates the discussion and disclosure of the adverse impacts associated with a proposed action and alternatives to it. Environmental Impact Statements are prepared when there are known to be or may be significant impact(s) to the quality of the human environment (40 CFR 1502.1). Under NEPA, significance takes on a special, though not necessarily precise, meaning. Federal Agencies are required to consider "significance" both from the perspective of context and intensity. Context relates to the sphere of influence of the effects of the action. This might range from society as a whole, to the affected geographic region, down to the specific locality of the proposed action. Intensity refers to the relative severity of the impacts. Several aspects of intensity are relevant to this proposed action (40 CFR 1508.27):

- Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

- The degree to which the effects on the quality of the human environment are likely to be controversial.

- The degree to which the possible effects on the human environment are uncertain or involve unique or unknown risks.

- The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

- Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

The "human environment" also takes on specific meaning in NEPA (40 CFR 1508.14). It is a term intended to include both the natural and physical environment and the relationship of people with that environment. Implicit in this terminology is the understanding that social or economic settings alone do not constitute the "human environment." Rather, it is the interaction of these with the natural and physical environment that comprise the "human environment."

Below is a list of the significant impacts associated with implementation of each of the alternatives:

Baseline for Comparison: Alternative A - No Action

There would be no known significant impacts to the environment from implementation of this alternative.

WORST CASE SCENARIO

Alternative B

1. Wetlands

   No known significant impact. Potential disturbance of approximately .03 - .08 acres of wetlands from cut slope failure over the life of the operation. A narrow band of riparian area runs along the upper reaches of Gardner Canyon and it would be impacted by mass failure.

2. Water Quality

   There would be potential introduction of large quantities of sediment into the stream course in Gardner Canyon from runoff and possibly of cut slope failure over the life of the project. A landslide could disrupt water flow to users who depend on flow from Gardner Canyon, and would lower the quality of this supply.

3. Soils and Vegetation

   No known significant impact - A maximum 63 acres of surface disturbance could occur.

4. Visual Resources

   The visual quality objective of preservation would not be met.

5. Cultural and Historic Resources

   No known significant impact.

6. Air Quality

   There would be no known significant impact as long as the operation complies with state air quality standards.

7. Wildlife

   A maximum 63 acres of surface disturbance with an estimated 50 acres permanently altered so as to be ineffective for big game winter range habitat could occur.

8. Aquatic Resources

   No known significant impact.

9. Wilderness

   Impacts to wilderness resource would be significant from several perspectives. A number of the basic tenants of wilderness will be violated:

a. Untrammeled by man.

b. Undeveloped land retaining primeval character and influence.

c. The imprint of man's work substantially unnoticeable.

d. Natural conditions preserved.

The basic wilderness charter would be altered as a result of disrupting the present natural existing state of the wilderness ecosystem. The physical and biological environment that make up the natural wilderness environment would be modified.

10. Local Economy

No known significant impacts.

Alternative C

The significant impacts associated with Alternative B would also be associated with Alternative C. The fact that mining activity would occur causes significant impacts in the areas of visual resource and wilderness. The route and location of access to the pit does not change significance, only the amount of acres that would be disturbed. This alternative would disturb a larger amount of acres (2 more), which are on state and private land. A total of 4 acres of state and private land will be impacted. More visual resource disturbance will occur as a result of the road location.

IRREVERSIBLE AND IRRETRIEVABLE EFFECTS

Irreversible is a term that describes the loss of future options. It applies primarily to the effects of using non-renewable resources such as minerals or cultural resources, or to those factors such as soil productivity that are renewable only over long periods of time. Irretrievable is a term that applies to the loss of production, harvest, or use of natural resources. Typically, irretrievable losses associated with an area may be returned if it reverts back to its original land use.

Outlined below is a listing of these effects by alternative:

Alternative A - No Action

There would be no irreversible or irretrievable environmental effects. There would be the loss of the opportunity to mine the gypsum - a non-renewable resource.

Alternative B

1. Irreversible Effects

Consist of removal of the privately owned gypsum, a loss of soil production, vegetation cover, visual quality, and wildlife habitat. This irreversible loss would result from construction of the pit area; approximately 50 acres in a worst case situation are estimated to be non-reclaimable.

2. Irretrievable Effects

Loss of a "wilderness" setting in the area for at least the life of the mine. There would also be a loss of wildlife habitat, soil productivity, vegetation production, and visual quality during the operation of the project and twenty to forty years beyond the end of the operation.

Alternative C

1. Irreversible Effects

Same as alternative B.

2. Irretrievable Effects

Same as Alternative B except for the location of impacts to the "wilderness" setting. There would be no Gardner Canyon access road, but an additional access road would be built mostly outside the wilderness on the hillside above Gardner Canyon.

CUMULATIVE EFFECTS

The mining plan submitted addresses the initial proposed operation. The owner/operator states that significant quantities of gypsum are present, but without examining the extent and quality of the gypsum as well as the economic feasibility of extracting the ore, a long-term mining plan cannot be realistically developed. There is no legal requirement for the proponent to submit to the Forest Service a long-range mining plan. In consideration of these limitations, this supplement has dealt with the environmental analysis associated with the proposal submitted, the access issue associated with the proposal, and the assumption that the entire area included in the mineral rights would be disturbed. The proponents' mineral rights do not exceed the boundary of said lands, but he may pursue his rights indefinitely within the bounds of said lands as long as he does not create a surface disturbance beyond the bounds on his mineral rights.

Without basic information regarding the size of the ore body and the feasibility of removing it, attempts to envision future mining scenarios and the resulting environmental impacts would be unrealistically speculative. The period of time during which mining does occur represents an irretrievable loss of wilderness characteristics. The cumulative effect would increase with additional time of operation.

In addition to these outstanding mineral rights, there were 114 unpatented mining claims within and adjacent to the project area. The Forest Service has completed a mineral exam to determine the validity of these claims. These claims covered various minerals (limestone, uranium, and gypsum). In a report dated April 2, 1992, the Bureau of Land Management issued a contest notice, contesting these claims for validity. The claimant failed to file his 1992 assessment, thus rendering all unpatented claims null and void. No cumulative effect is expected in the foreseeable future from interaction of the proposed action or alternatives with possible actions associated with these unpatented claims. Since the area is within a designated wilderness, it is withdrawn from mineral entry and no new mining claims can be filed.

Starting in 1994 in Section 21, T. 12 S., R 1 E., next to interstate 15, a gravel operation was started. It covers about 10 acres and is on private ground about 2 miles from the proposed project area. There are no other actions predicted for state or private lands. The state land is managed for wildlife habitat.

INCOMPLETE OR UNAVAILABLE INFORMATION

Incomplete or unavailable information was sometimes encountered in the process of preparing this EIS. The implications of these situations and how they were handled are discussed here.

Quantity, Location, and Quality of the Ore Body

The agency has no specific data on the overall quantity, exact location (width and depth), and quality of the ore body. A portion of the gypsum is exposed. It has also been studied by the proponent, Forest Service geologists, the U.S. Geological Survey, and the U.S. Bureau of Mines, all of whom made basic estimates of its size. To accurately determine the true dimensions, shape, geometry, tonage, and grade, the ore body would have to be drilled. The drilling would require the construction of drill sites and possibly access roads within wilderness. The cost for such data collection would vary with the equipment used (helicopters vs. road access) and the amount of drilling that would be required. The agency feels that the impacts to the wilderness and the costs associated with the collection of this data exceed the need to obtain it for the analysis. An estimated amount of gypsum, based on the exposed ore body and projected estimations, will be used for the analysis.

Specific Data Associated with the Road Described in Alternative C

The agency has not surveyed an exact route and completed a road design with exact quantities and costs for the road described in Alternative C. The location of this road would be up to the discretion of the proponent as a result of his negotiations with the various land owners. The agency determined that the location it would select for data collection might not be the location that would be constructed. If that alternative were selected, and since it would cost approximately $2,000 to collect this data, it would not be appropriate to fund data collection at this time. The agency used general cost data and made general road construction assumptions to obtain the cost data for the road described in this alternative.

Exact Scope of the Mining Proposal

As was discussed in Chapter I, the agency cannot mandate the owner of outstanding mineral rights to a specific operation. The proponent has a right to alter his operating plan and change his course of action for developing his mineral right as he chooses. He must be permitted by the state, and the Forest Service must agree with the details of the operating plan. The agency cannot mandate or dictate a specific operating plan but the agency maintains the right to challenge unacceptable portions of the operating plan with appropriate legal action. The Forest Service is therefore unable to analyze a specific mining proposal at the time. The agency used a combination of the general information provided by the proponent, an analysis done by a Forest Service mining engineer, and a worst case scenario to project the associated impacts of the connected action of mining.

CHAPTER V - LIST OF PREPARERS

Larry Call	BFA Landscape Arch. Forest Planner 27 Years Federal Govt. 2 Years County Govt.	ID Team Member NEPA Coordinator
Kim Martin	BS Engineering Forest Engineer/Minerals 19 Years Federal Govt.	ID Team Member Engineering/Minerals Input
Brent McBeth	BS Range Management Forest Recreation/Lands 22 Years Federal Govt.	ID Team Member Alternative Formulation Lands/Recreation Input
Carol Nunn-Hatfield	BS Wildlife Management Wildlife Biologist 5 Years Federal Govt.	ID Team Member Alternative Formulation Wildlife Input
Mark Sensibaugh	BS Wildlife Management Resource Assistant 15 Years Federal Govt.	ID Team Leader Alternative Formulation Wilderness/Mineral/ Recreation Input
Paul Skabelund	BS General Forestry Forester-Watershed 35 Years Federal Govt.	ID Team Member Soil & Water Resource Input, Alternative Formulation
Mary Taylor	BA English & Environmental Studies MES Natural Resource Policy & Management Assistant Forest Planner 3 years Federal Govt.	ID Team Member Alternative Formulation Document Review
Tom Tidwell	BS Range Management District Ranger 17 Years Federal Govt.	ID Team Member Alternative Formulation Document Review

OTHER INDIVIDUALS WHO ASSISTED THE PREPARERS

Tom Abbay	BA Geology Grad Work Mining & Economic Geology Geologist 16 Years Federal Govt.	Mining and Geology Input
Marlene DePietro	BS Range Management Range Conservationist 15 Years Federal Govt.	Range/Vegetation Input
Dave Hatch	BS Landscape Architecture Forest Landscape Arch. 4 Years Federal Govt.	Visual Input
Cindy Swanson	BA Anthropology Forest Lands Specialist 15 Years Federal Govt.	Document Review
Robert Sykes	BA Geology Post Grad Work Hydro Geology Geologist Certified Mineral Examiner 16 Years Federal Govt.	Mining and Geology Input
Charmaine Thompson	MA Anthropology BS Anthropology Forest Archaeologist 4 Years Federal Govt.	Cultural Resource Input
Lola Murray	BA Management Information Assistant 5 Years Federal Govt.	Document Preparation

CHAPTER VI - CONSULTATION WITH OTHERS; LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE ENVIRONMENTAL IMPACT STATEMENT OR ITS SUMMARY HAVE BEEN SENT

Federal Agencies

Bureau of Land Management
Environmental Protection Agency
Fish & Wildlife Service
Intermountain Regional Office, U.S. Forest Service
Soil Conservation Service

City Governments

Mona
Nephi
Santaquin

State of Utah

Dept. of Natural Resources & Energy - Division of Oil, Gas and Mining
Division of Wildlife Resources
Division of Parks and Recreation
Governor, State of Utah

County Governments

Juab County Planning Commission - Richard Brough, Chairman

Libraries

Brigham Young University Library
Nephi Library
Payson Library
Provo City Library
Spanish Fork Library
Springville Library
Utah Valley Community College

Congressional Delegation

Congressman Bill Orton
Senator Robert Bennett
Senator Orrin Hatch

Associations and Private Citizens

Bullis, Connie A.
80 M Street #6
Salt Lake City, UT 84103

Burton, Jan Ellen
1340 Gilmer Drive
Salt Lake City, UT 84105

Carter, Dick
Utah Wilderness Association
455 East 400 South #306
Salt Lake City, UT 84111

Cox, William
AF/Leen Cr.
525 S. Griffin St.
Box 116
Dallas, TX 75202-5002

Gardner Canyon Irrigation
c/o Gordon McPherson
North State Highway
Nephi, UT 84648

Garver, Patrick J.
185 S. State
P.O. Box 11898
Salt Lake City, UT 84147

Harris, Jim
3741 West 12680 South
Spring Lake, UT 84651

Howard, Jack
North State Highway
Nephi, UT 84648

Jackson, Dale
North State Highway
Nephi, UT 84648

Jones, Don
375 North 400 East
Nephi, UT 84648

Jones, Nelson
310 North 400 East
Nephi, UT 84648

Knightor., Jose
P.O. Box 387
83 North Main
Moab, UT 84532

Leeson, Jane
The Wilderness Society
Walker Center, Suite 250
175 South Main
Salt Lake City, UT 84111

Lown, Jean M.
169 East 100 North, Apt. E
Logan, UT 84321-4601

Macfarlane, Gary
455 East 400 South #306
Salt Lake City, UT 84648

McPherson, Merle
North State Highway
Nephi, UT 84648

Steele, Robert
1075 North 400 East
Nephi, UT 84648

Sterling, Dale A.
P.O. Box 1029
Edmunds, WA 98020-9129

Wasatch Academy
120 South 100 West
Mt. Pleasant, UT 84647

GARDNER CANYON GYPSUM MINE PROPOSAL

APPENDICIES - LIST OF CONTENTS

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APPENDIX A
PROPONENT'S PROPOSED PLAN OF OPERATION

USDA, Forest Service

FS-2800-5 (1/90)
OMB NO. 0596-0022
EXPIRES: 07/31/92

PLAN OF OPERATIONS FOR MINING ACTIVITIES ON NATIONAL FOREST LANDS

Submitted by Robert L. Steele (Signature) Owner (Title) 7-13-90 (Date)

Plan Received by _____ (Signature) _____ (Title) _____ (Date)

I. GENERAL INFORMATION

A. Name of Mine/Project Nebo Gypsum

B. Type of Operation Gypsum Production
(lode, placer, mill, exploration, development, production, other)

C. Is this a (new/continuing) operation? (CIRCLE ONE)
If continuing a previous operation, this plan (replaces/modifies) a previous plan of operation. (CIRCLE ONE)

D. Proposed start-up date of operation 7-1-90

E. Proposed duration of operations 2 years

F. Proposed seasonal reclamation close-out date 12-1-92

II. PRINCIPALS

A. Name, address and phone number of operator Robert L. Steele
(801) 623-1877 1055 North 400 East
Nephi, UT 84648

B. Name, address, and phone number of authorized field representative (if other than the operator). Attach authorization to act on behalf of operator.

Jack Dansie (801) 623-2447
328 South 2nd West
Nephi, UT 84648

C. List the owners of the claims (if other than the operator)

Robert L. and Christy K. Steele.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

C. Project Description. Describe all aspects of the operation: how clearing will be accomplished, topsoil stockpiled, waste rock placed, tailing disposed of, etc. Calculate production rates and total volumes of waste rock and ore. Include justification and calculations for settling pond capacities and sizing of runoff diversion channels.

1. For first 12 months:

Waste rock will make the yard for mining and stock pile area. Top soil will be placed on the Southwest end of the yard. Approximately 100,000 tons of gypsum per year will be mined and hauled.

A burm will be made around the yard to contain the runoff water from the mine and the stockpile.

2. For total life of project:

Same as above.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

D. List name and address of any other lessees, assigns, agents, etc. and briefly describe their involvement with the operation, if applicable:

Jack Dansie → leaser of property
328 South 2nd West
Nephi, UT 84648

III. PROPERTY OR AREA

Name of claim and the legal land description where the operation will be conducted.

MMC #	Name	Section	Township	Range
	MacFarlane No. 1	22	12S	1 East

IV. DESCRIPTION OF THE OPERATION

A. Access. Show on a map (USGS quadrangle map or a National Forest map, for example) the claim boundaries and describe and show on the map all access needs, on and off the claim. Specify what Forest Service existing roads will be used, where maintenance or reconstruction is proposed and where any new construction is necessary. For new construction, include construction specifications such as widths, grades, etc. Show location and size of culverts. Describe maintenance plans. Describe the type and sizes of vehicles and equipment that will be traveling the access routes.

Map #1 Gardner Creek access blue Road will be improved by graveling it and installing 2 culverts. The width will remain the same, approx 16ft. wide. Mining Equipment necessary to be used on open pit mining will be involved. Bull dozers, Rock trucks, Loaders, compressors, and drills. Road will remain usable for opporation at all times.

B. Attach map, sketch or drawing showing location and layout of the area of operation. Include names and locations or any streams, creeks, and springs. Describe and explain on the map the type of operation, method or techniques you propose (examples: drilling, open pit mining, dredging, milling, etc.; include locations, capacity, size, amount, etc.). Show on the map and describe below the size and kind of all surface disturbance, such as trenches, pits, settling ponds, stream channels and run-off diversions, waste dumps, drill pads, timber disposal or clearance, etc. Include sizes, capacities, acreage, amounts, locations, materials involved, etc.

Stripping approximately 2 acres of scrubbook for mine and yard. Topsoil will remain on the sides of the pit for redistribution when mining operation is terminated. A burm will be put around the yard as to stop any water that might come from the mine or stockpile because of run off, to keep it out of the main drainage

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

D. Describe the Equipment and Vehicles you propose to use in your operation (Examples: drill, dozer, wash plant, mill, etc.). Include: sizes, capacity, frequency of use, etc..

Drill, airtrack and jackhammer, D-6 to D-8 Cat, crusher, and rocktrucks.

E. Structures. Describe and include justification for the structures or facilities planned for the operation. Include such things as storage sheds, mill buildings, thickener tanks, fuel storage, powder magazines, pipe lines, water diversions, trailers, sanitation facilities, etc. Include justification and calculations for sizing of tanks, pipelines and water diversions. The fuel storage facilities should include containment structures that will hold the volume of the largest storage tank in case of a tank failure of leak. Show the locations on the sketch map.

No structures.

V. ENVIRONMENTAL PROTECTION MEASURES (SEE 36 CFR 228.8)

A. Air Quality. Describe measures to be taken to minimize impacts on air quality such as obtaining a burning permit for slash disposal or dust abatement on roads.

Road will be treated with a dust abatement material or sprinkled with water when hauling.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

B. **Water Quality.** State how applicable state and federal water quality standards will be met. Describe what measures or management practices will be used to minimize water quality impacts and meet applicable standards.

1. If water is to be used in the operation (processing ore, washing ore, solution make-up, etc.) state how the water will be stored, treated an disposed of. If ponds of any type are proposed, such as for storage or settling, state how they will be designed and built. Provide storage capacities and water balance calculations. State how ponds will be maintained on an annual basis.

need more info. on these

2. Describe methods to control runoff and erosion to prevent entry into surface water for all disturbed areas, including waste and tailings dumps.

3. Describe proposed surface water and groundwater quality monitoring, if required, to demonstrate compliance with federal or state water quality standards.

4. Describe what measures will be used to minimize potential water quality impacts during winter closure, if applicable.

5. If land application is proposed for wastewater disposal, the location and operation of the land application system should be described.

Not Applicable.

C. **Solid Wastes.** State how any tailing, dumpage, or other waste produced by operations will be disposed of or treated so as to minimize adverse impacts. Include a statement that all unburnable garbage and refuse will be hauled off-Forest to a sanitary landfill.

All garbage will be hauled to Nephi City Landfill.

D. **Scenic Values.** State how scenic values will be protected. Examples are screening, slash disposal, timely reclamation, etc.

Timely Reclamation.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

E. Fish and Wildlife. All practicable measures to maintain and protect fisheries and wildlife habitat affected by the operations must be taken, and should be defined. Most of those measures involve avoidance of critical habitat such as along streams and bogs when planning roads, dumps, etc. Opportunities during reclamation to prevent erosion or plant browse or forage species should be described.

plant browse and grass upon reclamation.

F. Cultural Resources. Describe procedures for protection of historic and archeological values. The Forest Service is responsible for insuring that the area to be covered by the operating plan is inventoried prior to plan approval to determine the presence of significant cultural resources and will specify protective and/or mitigation measures to be taken by the operator. If previously undiscovered cultural resources (historic or prehistoric objects, artifacts, or sites) are exposed as a result of operations, the operator shall not proceed until he is notified by the District Ranger that he has complied with provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800.

If cultural resources are found, we will contact the forest service.

G. List all hazardous substances (by name and quantity required) which you intend to use or generate during the proposed operation. Operations USING or GENERATING HAZARDOUS SUBSTANCES must attach copies of other Federal and State agency permits, including all stipulations and conditions pertaining to the permit.

Blasting agents required to mine 100,000 tons of ore will be ordered and used the same day we blast.

H. With regard to hazardous substances, discuss handling, storage, security (fencing), identification (signing), or other special operations requirements necessary to conduct the proposed operation.

No hazardous substance will remain on the property without properly storing and signing.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

I. Close-out Reclamation. This section should describe the removal of structures and facilities, and the reclamation of the access road. It should specify that roads no longer needed: (1) be closed, (2) bridges and culverts be removed, (3) cross drains, dips, or water bars be constructed, and (4) the road surface be shaped to as near a natural contour as practicable and be stabilized. Show the expected date for completion of all reclamation.

When the mine is permanantly closed down. Reclamation will be done. We will reclaim the road at that time if the forest Service requires it.

VI. FOREST SERVICE EVALUATION OF PLAN OF OPERATIONS

A. Recommended Changes/Modifications for Plan of Operations: We need to get a more detailed reclamation plan. How to administer 228 or Special Use permit. Need more detail on how mining operation will work. What other existing roads will be utilized. Bond calculation. Access thru wilderness or not. Check ownership of land. Survey of claim boundary. Impacts to Wilderness quality and existing H2O rights (pipeline). Need contact DOGMI on operation. Contact S.O. - approval is by Forest Supervisor.

B. Bond - As a further guarantee of faithful performance with the reclamation requirements agreed upon in the plan of operations, the operator delivers herewith and agrees to maintain a surety bond, cash, bond, irrevocable letters of credit in the sum of _____ ($_____).

ACKNOWLEDGEMENTS

A. It is understood that should the nature of the operation change a modified or supplemental plan of operations may be required.

B. It is understood that approval of this plan of operations does not constitute: (1) Certification of ownership to any person named herein; and (2) Recognition of the validity of any mining claim named herein.

(If more space is needed to fill out a block of information, use additional sheets and attach to form.)

C. It is understood that a bond equivalent to the actual cost of performing the agreed upon mitigation and reclamation measures may be required before this plan can be approved.

D. It is understood that approval of this plan does not relieve me of my responsibility to comply with any other applicable State or Federal laws, rules or regulations.

E. It is understood that any information provided with this plan that is marked confidential will be treated by the agency in accordance with that agency's laws, rules and regulations.

I/We have reviewed and agree to comply with all conditions in this plan of operations, including the recommended changes and reclamation requirements. I/We understand that the bond will not be released until the Forest Officer in charge gives written approval of the reclamation work.

Robert L. Steele — 7-13-90

Operator (or Authorized Official) — (Date)

OPERATING PLAN APPROVAL:

(Name) — (Title)

(Authorized Officer) — (Date)

Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, Room 404-W, Washington, D.C. 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB #0596-0022), Washington, D.C. 20503.

Expires 8/31/89

USDA-Forest Service

SPECIAL-USE APPLICATION AND REPORT

(Ref.: FSM 2712, 36 CFR 251.54)

FOREST SERVICE USE ONLY			
Date Received (mo/day/yr) 06,28,90	Region Number	State Code	County Code
Congressional Dist. Number	Forest Code (Admin. Unit No.)	Unit ID Symbol (NFFID No.)	
Ranger Dist. No. (Resp. Dist.)	User Number	Kind of Use Code	

INSTRUCTIONS

Applicant should request a meeting with the Forest Service representative responsible for processing the application, prior to completing this form. This meeting will allow a discussion of the form's requirements and identify those items to be omitted.

PART I—APPLICATION (Applicant Completes)

1. Applicant Name and Address (include Zip Code)
Robert L Steele
1055 N 4 E
Nephi, Utah 84648

2. Authorized Agent Name, Title and Address (include Zip Code) if different from Item 1.

3. Area Code and Telephone Number 801-623-1877
a. Applicant's
b. Authorized Agent's

4. As applicant are you? (Mark one box with "X")
a. ☒ Individual
b. ☐ Corporation*
c. ☐ Partnership/Association*
d. ☐ State Government/State Agency
e. ☐ Local Government
f. ☐ Federal Agency
* If marked "X", complete PART II.

5. Specify what application is for: (Mark one box with "X")
a. ☐ New authorization*
b. ☐ Renew existing authorization
c. ☒ Amend existing authorization*
d. ☐ Other*
* If marked "X", provide details under Item 7.

exist roadway

6. If you are an individual or partnership, are you also a citizen(s) of the United States?
☒ Yes ☐ No

7. Describe in detail the land use, including: (a) type of use, activity, or facility; (b) related structures and facilities; (c) physical specifications (length, width, acres, etc.); (d) term of years needed; (e) time of year of use or operation; (f) duration and timing of construction; (g) temporary work areas needed for construction; and (h) anticipated need for future expansion. (If extra space is needed, use Page 3, REMARKS).

(a) Gravel & Grade access road to (patented mining claims) appx. 20 ft. wide and appx. 1 mile in length. Consisting of appx. 2½ acres.
(b) The road will be used for access with heavy equipment, bulldozers & mine trucks and all types of mine equipment necessary to carry on mining and processing of the gypsum.
(c) The gypsum will be hauled down the road to a stockpile outside Forest Boundary. This will continue until the gypsum is mined out or there is no more sale for it.

8. Attach map covering area and show location of proposed use and/or furnish legal description of the land.

9. Give statement of your technical and financial capability to construct, operate, and terminate the use for which authorization is requested, including the protection and restoration of Federal lands. (If extra space is needed, use page 3, REMARKS).

I have been in mine related activities for the past 20 yrs. I have built roads on Forest lands and have reclaimed roads on Forest land.

10a. Describe other reasonable alternative proposals considered.

no other alternatives.

10b. Give explanation of why it is necessary to utilize Federal lands and why the alternatives in item 10a were not selected.

Access to the mine is in Gardners Canyon and always has been.

11. Provide statement of need for proposed use, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits. (If extra space is needed, use page 3, REMARKS).

(a) Contract to mine and haul gypsum to railhead in Nephi.
(b) Road construction will be appx. $8,000.00.

12. Describe probable effects on the area population, including social and economic aspects, and rural lifestyles.

no effect.

13. Describe likely environmental effects that the proposed use will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) control or structural change on any stream or other body of water; (e) existing noise levels; (f) land surface, including vegetation, permafrost, soil and soil stability; and (g) populations of fish, plant, wildlife and marine life, including threatened and endangered species. (If extra space is needed, use page 3, REMARKS).

a. Some dust will get into air - but we will meet State Guide lines.
b. No visual from general public.
c. will not effect surface or ground water.
d. none
e. noise level will increase some
f. some vegetation will be covered with gravel
g. none

14. Describe what actions will be taken to protect the environment from the effects of the proposed use.

Dust will be controlled with water or other dust control methods.

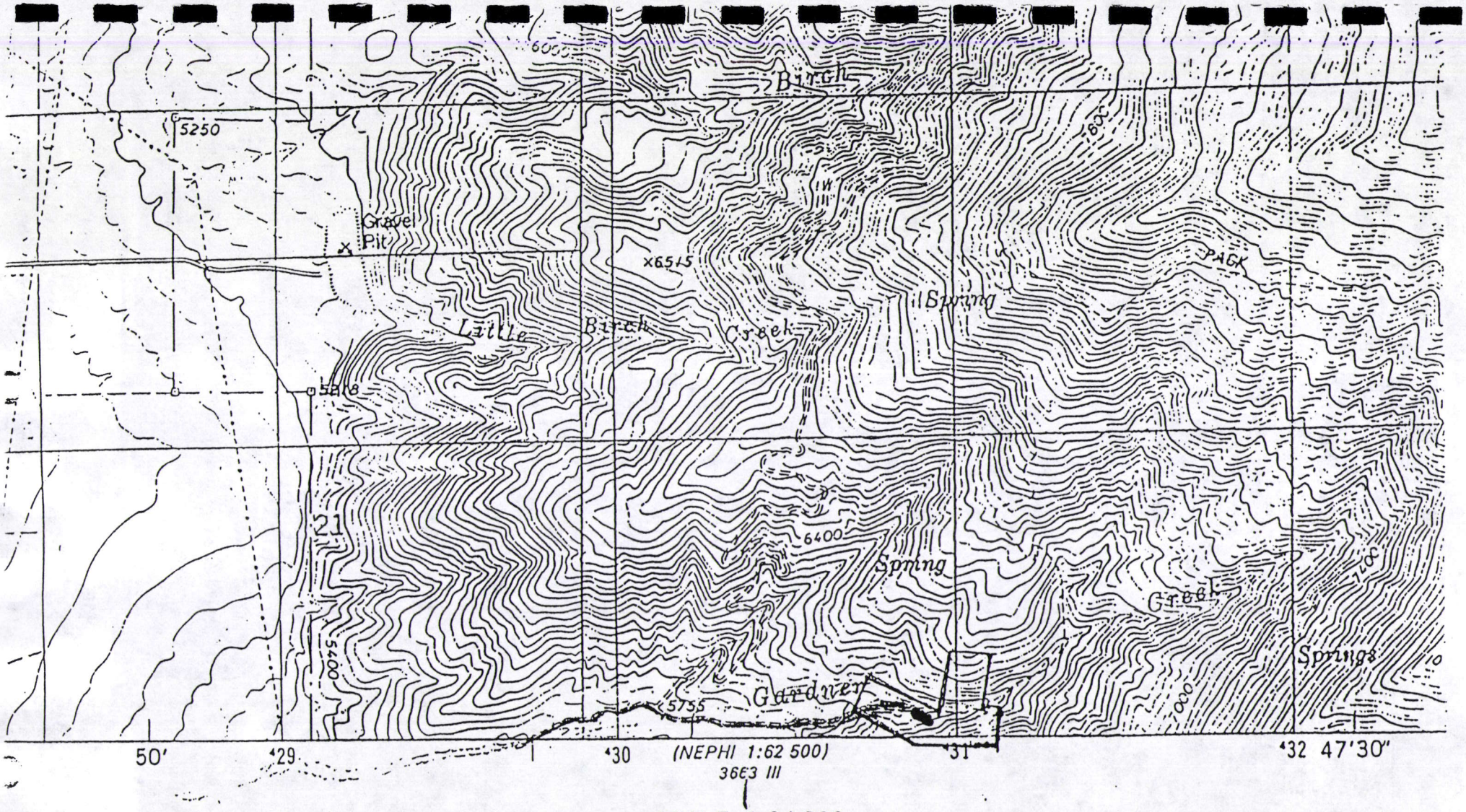
15. Name all Federal, State, County or other department(s)/agency(ies) where an application for this is being filed. Attach appropriate license, building permit, certificate or other approval document.

State Mine Reclamation.

I HEREBY CERTIFY, that I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and that this information is correct to the best of my knowledge.

16a. Applicant's Signature (Sign in ink)	16b. Date
Robert L. Steele	6-27-90

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.



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CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 20-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MAP ACCESS ROAD

#1 A

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ORTH
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APPENDIX B

BIOLOGICAL EVALUATION

AND BIOLOGICAL ASSESSMENT

UINTA NATIONAL FOREST

SPANISH FORK RANGER DISTRICT

BIOLOGICAL EVALUATION

FOR THE GARDNER

CANYON GYPSUM MINE PROPOSAL

I. INTRODUCTION

The USDA Forest Service has developed policy regarding the designation of sensitive plant and animal species. Sensitive is defined as (FSM 2670.5) "those plant and animal species identified by the Regional Forester for which population viability is a concern as evidenced by; 1) significant current or predicted downward trends in population numbers or density; or 2) significant current or predicted downward trends in habitat capability that would reduce a species existing distribution."

This biological evaluation analyzes the relationship and potential effects of the Gardner Canyon Gypsum Mine proposal on sensitive species currently listed for the Uinta National Forest by the Regional Forester. Each species and current status is shown in Table 1.

The purpose of the biological evaluation is to make a determination regarding the potential effects of implementing the selected alternative on the status of these sensitive species and/or it's habitat.

TABLE 1. Status of the sensitive plants known or suspected to occur on the Uinta National Forest.

SPECIES	Suitability of Habitat for Sensitive Plant and Animal Species within Gardner Canyon.	
	Suitable	Habitat Unsuitable Based on the following
Euderma maculatum Spotted bat		Bats are limited to suitable roosting site. Sensitive to human disturbance. Limestone or sandstone cliffs & roost sites in undisturbed areas. NO LIMESTONE/SANDSTONE PRESENT IN PROJECT AREA.
Rana pretiosa Spotted frog	X	
Aster kingii var. *barnebyana* Barneby woody aster	X	

Accipiter gentillis Northern goshawk	X	
Plecotus townsendii Western Big-Eared bat		Roosts in caves, mine shafts, & rocky outcrops. Sensitive to human disturbance. NO KNOWN CAVES, OR MINE SHAFTS IN AREA.
Otus flammeolus Flammulated owl		Lack of suitable nesting habitat.
Picoides tridactylus 3 Toed woodpecker		Species highly specialized to mature or overmature forest. Snag requirements for species referenced by Conner & Evans (1979) Species is located north of project in High Uinta mountain range.
Oncorhynchus clarki pleutiticus Colorado Cutthroat		Require cool, clear water and vegetated streambanks for cover and bank stability. Spawning occurs in late spring in 45 degree water temp. Need clean gravel for spawning. NO CREEKS PRESENT.
Oncorhynchus clarki utah Bonneville cutthroat		Require clean gravel substrate & cool water for spawning from April until June. 1:1 riffel ratio & slow, deep water with vegetated streambanks. Prefer 55 degree water temperature. NO CREEKS PRESENT.

II. PROPOSED ACTION/LOCATION

The Gardner Canyon Gypsum Mine entails the proposal to mine gypsum from the Little Doctor, Macfarlane Number 1, and Macfarlane Number 4 claims located within the Mount Nebo Wilderness area Juab County, Utah. The claims are found within Sections 22, 23, 26, and 27, T. 12 S., R. 1 E., Salt Lake Meridian. The claims are described in Patent dated July 22, 1926, recorded in book 103, page 99, records of Juab County, Utah.

The analysis is based on three alternatives outlined in the Draft Environmental Impact Statement (DEIS) for the proposed Gardner Canyon Gypsum Mine Proposal, Uinta National Forest; No Action; Proposed Plan of Operations, and Non-Wilderness Access.

III. CURRENT MANAGEMENT DIRECTION

Current policy as stated in the Forest Service Manual (FSM 2670.32) includes the following (USFS 1991):

1. Assist states in achieving their goals for conservation of endemic species.

2. As part of the National Environmental Policy Act process, review programs and activities, through a biological evaluation to determine their potential effect on sensitive species.

3. Avoid or minimize impacts to species whose viability has been identified as a concern.

4. If impacts cannot be avoided, analyze the significance of potential adverse effects on the population of its habitat within the area of concern and on the species as a whole.

5. Establish management objectives in cooperation with the states when projects on National Forest System lands may have a significant effect on sensitive species population numbers or distributions. Establish objectives for Federal Candidate species, in cooperation with the USFS or NMFS.

It is the responsibility of the Uinta National Forest to: 1) comply with the procedural and biological requirements for sensitive species, 2) develop quantifiable objectives for managing populations and/or habitat for sensitive species, 3) determine distribution, status, and trend of sensitive species and their habitats on forest lands, 4) recommend essential habitat designation, 5) approve biological evaluations, and 6) coordinate Forest programs with other Federal agencies, State of Utah, and other groups and individuals concerned with the conservation of sensitive species.

IV. SPECIES DESCRIPTION

Habitat Description for Sensitive Species

1. Northern Goshawk *Accipiter gentilis*

The goshawk was listed as a "sensitive" species during 1991, and is not included in the publication "Threatened, Endangered, and Sensitive Species of the Intermountain Region." The Southwestern Region (R-3) of the Forest Service has published rather extensive and comprehensive **interim** "Management Guidelines for the Northern Goshawk." These guidelines have not been officially accepted by R-4 and an "R-4 Goshawk Guideline Committee" was established 1/15/92 "to develop draft guidelines for the protection and management of the northern goshawk in the Intermountain Region."

2. Spotted Frog *Rana pretiosa*

Spotted frogs generally are found near permanent water such as marshy edges of ponds or lakes, in algae-grown overflow pools of streams, or near springs with emergent vegetation during the breeding period. However, they may move considerable distances from water after breeding, often frequenting mixed conifer and subalpine forests, grasslands, and brushlands of sage and rabbitbrush. They are thought to hibernate in holes near springs or other areas where water is unfrozen and constantly renewed. It also is claimed they need sources of relatively clear or good-quality water.

V. EXISTING ENVIRONMENT

A. Northern Goshawk *Accipiter gentilis*

1. Species Account

The adult goshawk has a uniformly blue-gray back with white and dense gray cross-barring on its underparts. It has a dark gray crown and ear patch separated by a white eye-stripe. The juveniles have a brown back with brown-streaked creamy underparts, heaviest on flanks and a light eye-stripe. The tail has wavy, dark bands bordered with white and a thin white tip. The female is larger and stronger than the male, as in most birds of prey. The goshawk is chunkiest of Accipiters, resembling the Red-tailed Hawk in shape. During flight, the goshawk flies with several short, rapid flaps followed by a glide.

Mating pairs move into nesting territories and begin nest construction/repair as early as late February, but more commonly in mid-March to early April. Clutches of 1 to 4 eggs are laid in 3-day intervals around early May. The male provides all food for the pair for roughly a week prior to egg-laying, to approximately a week after hatching. Shading of the brood appears to be important to nest success, and is considered a critical

habitat characteristic. Incubation lasts about 32 days. The male supplies food while the female incubates and broods. Nestlings are in the nest for 37 to 42 days, and remain dependent upon the parents an additional 30 to 40 days. As the young grow and demand more food, both parents hunt. Although Goshawks can kill animals as large as jackrabbits and geese, they feed mainly on grouse and smaller birds. The goshawk does not reach sexual maturity until the second year. The breeding season is considered to be from March 1 through September 30.

2. Habitat Status

The goshawk does occur on the Nebo Unit. There are approximately 110,000 acres that is suitable habitat for goshawks. The Gardner Canyon area would be considered as unsuitable for nesting habitat, but suitable for foraging habitat.

The goshawk is a raptor of dense forest, both in nesting and foraging. It requires large tracts of undisturbed, mature, forest with occasional small breaks and riparian zones. Understory species vary with region, but generally thick shrub cover is disadvantageous to the hunting style of the goshawk, although riparian corridors are utilized fairly heavily due to prey density.

a. Nesting Habitat

Nesting sites of the goshawk vary in different parts of the country. However, in the West it typically nests in mature Douglas fir, ponderosa pine, lodgepole pine, or aspen. Mature trees serve as nest and perch trees, while plucking posts frequently are located in denser portions of the secondary canopy. Nests usually are located against the trunk in the lower portions of the mature canopy, 30 to 60 feet above the ground. Sites are typically multi-canopied, on benches or gentle slopes with a north or east aspect, with occasional small breaks and nearby riparian habitat.

b. Foraging Habitat

The goshawk, as well as other Accipiters, are short-sit-wait-short flight predators. They search their immediate surroundings for prey from a tree perch and then seconds after, make a short flight to another perch. Their rudder-like tail, great quickness, and power, combine to allow them to take a great variety of prey species, from small passerines to snowshoe hares, generally running them down in bursts of speed. They hunt primarily in canopy-shrub and shrub-ground cover zones of mature woodlands. The most common prey species in the northern U.S. are quail or grouse, woodpeckers, jays, robins or other thrushes, hares, and ground or tree squirrels. Provision of suitable habitat for major prey species is a concern.

According to the Management Recommendations for the Northern Goshawk in the Southwestern United States, the foraging area of a goshawk is approximately 5,400 acres (not including acres for nesting and post-fledging area). The project area could be suitable foraging habitat for the goshawk, but more open canopy is preferred in a foraging area. The goshawk is a raptor of dense forest and usually thick shrub cover is disadvantageous to its hunting style.

B. Spotted Frog Rana pretiosa

1. Species Account

The spotted frog is a true frog. It is light brown, dark brown, or grayish on its back with varying numbers of spots. The large spots often have light centers with indistinct or fuzzy edges. There is a mask on the face but it is sometimes faint. A light colored jaw strip usually reaches the shoulder. The adults are usually red, salmon, or yellow on the underside of the limbs, depending on locality and their age. The yellow or orange color is usually faint or absent in the young. The throat, as well as sometimes the entire ventral surface, is spotted. The legs are relatively short, and the heel of the depressed hind limbs seldom reach to

the nostril. The eyes are turned slightly upward. Males have a swollen and darkened thumb base. Their length is anywhere from two to four inches.

Calls of the spotted frog last from 1 to 10 seconds, and consist of faint, rapid, low-pitched clicks. Breeding is from late February to early July, beginning as early as the winter thaw will permit. Eggs are deposited primarily in ponds or quiet water in clusters of several rounded masses, which rest on the bottom in shallow water and are not attached to vegetation. Hatching is dependent upon temperature and ranges from 3 to 21 days. Some tadpoles metamorphose by fall, while others overwinter as tadpoles and metamorphose the following spring. Sexual maturity occurs at 2 to 6 years of age, depending on location and elevation. At higher elevations, spotted frogs grow and reach sexual maturity more slowly, have longer life spans, and may not breed every year.

2. Habitat Status

A survey completed in 1991 which was conducted by Dennis Shirley, Non-game Specialist of Utah Division of Wildlife Resources (UDWR), resulted in only one spotted frog population occurring on the Uinta National Forest, Pleasant Grove District. There were no spotted frogs found on the Spanish Fork Ranger District.

There are no springs or water bodies within the claims. There is a live stream in the upper reaches of Gardner Canyon which passes through the Little Doctor Claim boundary. This stream maintains a year-round flow of approximately .30 c.f.s. It is diverted into a steel pipe just above the Macfarlane #1 Claim boundary, and transported off Forest for use in the valley. Twelve shareholders of the Gardner Canyon Irrigation Company use this water for irrigation, livestock water, and culinary purposes.

3. Barneby woods aster Aster kingii var. barnebyana

1. Species Account

This plant is a member of the composite or aster family (Asteraceae) or sunflower family. There are persistent blackish or dark brown, old leaf bases at the base of the plant. The stems are short (3-12 cm long) and the herbage is covered with glandulare haris. Flowers occur in clusters of 1-5, standing 8-11 mm high. The inner bracts are often purplish and the tips of the outer are bent backward. The ray flowers are white, often fading to pale pink.

2. Habitat Status

This plant has been found in mountain mahogany and oak communities on rock outcrops composed of Precambian quartzite. The range of elevation between 7,345 and 7,610 feet. This species is very similar to Aster kingii var. kingii. They differ in the morphological characters. The var. barnebyana is reported by Welsh (1981) to have: 1) more dense and more pronounced teeth on the margins of the basal leaves, and 2) longer multicellular hairs on the stems.

Until 1991, var. barnebyana was thought to be restricted to the Canyon Mountains, but during a plant survey conducted by Joel Tuhy on Mount Nebo, this species was collected and confirmed. It was also determined that the two specimens collected in 1981 by Sherel Goodrich, appeared to be var. barnebyana, and were subsequently confirmed by Dr. Welsh. These two 1981 collections were made in two of the three Mount Nebo locations where Joel Tuhy collected var. barnebyana in 1991.

Four locations of the Aster kingii var. barnebyana were found and mapped on the Mona, Nebo Basin, and Santaquin quadrangles. Based on these surveys, a conclusion was drawn that no populations would be found in the Gardner Canyon area.

VI. EFFECTS OF THE PROPOSED PROJECT

A. Direct and Indirect Effects

The results of the 1991 survey completed by Utah Division of Wildlife Resources showed that there were no existing populations of the spotted frog within the Nebo Creek area located east of the analysis area. Communication efforts between Utah Natural Heritage, Zoologist Robin Tune, and Spanish Fork Ranger District Wildlife Biologist, Carol Nunn, determined that there is no suitable habitat within the analysis area and the spotted frog would not occur; therefore, there would be no direct and/or indirect effects.

The proposed project site would be considered to be suitable foraging habitat, but it is not comprised of a thick dense forest that the goshawk prefers for nest sites, post-fledgling areas and roosting. With approximately 60 acres being impacted, an indirect effect would be the reduction of habitat available for goshawk prey. This could indirectly effect goshawks foraging in the area over a short time period by displacing them to other areas for hunting. Since goshawk foraging areas are approximately 5,400 acres, this would not directly affect the bird.

B. Cumulative Effects

The area where the subject lands are located has a history of mining activity dating back to the early 1900's. Prior to wilderness designation, a series of claims were established around the patented claims, and exploration work was conducted. This work included the construction of access roads, digging of test holes, and some exploratory drilling.

The proposed operation would be an open pit mine with an estimated 15,000-100,000 ton of ore removed annually. The mining operation would involve stripping approximately four acres of surface vegetation and top soil to expose the gypsum ore. The ore body would be mined in an open pit fashion with the ore material being pushed to the bottom of Gardner Canyon where it would be run through a crusher, loaded on trucks, and removed from the site. Minimal stockpiling of ore would occur on site. The top soil and overburden would be stockpiled and stabilized for further reclamation. The period of operation would be from early spring through early winter. The duration of the operation is not known, but the operation would be updated annually.

Big game, primarily mule deer, utilize the entire area during the winter. The project area lies in the North Nebo Deer Unit #26. Big Game Trend Studies for the Gardner Canyon area showed that the shrubs, critical for winter survival (cliffrose and mountain mahogany) were severely hedged and decadent. The junipers on site were obviously highlined. There is a low frequency of grasses and forbs. Bluebunch wheatgrass was the only grass species encountered in 1989. The only forbs with any significance were scarlet globemallow and low fleabane. The Nebo unit remains on the list of top deer herd units requiring winter habitat preservation action. The available winter range, especially critical areas on the west side of the unit, remain threatened by development, mismanagement, and a high fire hazard.

The project area also lies within the Nebo Elk Herd Unit #22. Elk utilize the foothills and lower mountainous areas during the winter months and the higher mountains during fall, spring, and summer months. The Santaquin-Nephi face is probably the largest area where elk concentrate during the winter months. Winter range condition in this area can be classified as poor to fair. Summer range is in good condition.

Small/medium mammals in Gardner Canyon include cottontail and blacktail jackrabbits, coyote, striped skunk, along with bobcats, and mountain lions. The most common upland game bird that utilizes habitat found in the project area is the blue grouse. There are no strutting grounds existing in the area, but nesting and brood-rearing activities may occur in areas of the project site that would provide an abundance of forbs and grasses.

Golden eagle nest sites are located at the mouth of Birch Creek and at Quaking Aspen Canyon, both of which are just over one mile from the project area.

No surveys for goshawks will be completed because the project area lacks suitable nesting habitat.

Approximately 60 acres of wildlife habitat would be impacted through pit construction and additional 2-3 acres of disturbance from access road development outside of the pit area. An area of individual disturbance would also be associated with the project. Noise and human activity associated with the project would displace wildlife species from the operating area. This disturbance would vary with species and the scope of the operation; however, an estimated displacement of 1/4 of a mile or more from the project area is calculated for most species. There would be some short-term loss of vegetation as disturbed areas are reclaimed. Long-term losses in vegetation would result over the duration of the operation. The amount of acres disturbed at any given time, as well as the amount of acres which would be a long-term disturbance, would be entirely dependent upon the future development of the mine and the amount of economically recoverable ore present within the claim boundaries. The exact quantity of unavoidably lost acreage is not known, as the exact dimensions and economic feasibility of mining the ore body are not known.

Revegetation would take 20-25 years to reproduce pre-disturbed conditions. Reclamation would initially produce satisfactory ecological conditions, but in the form of grasses and some seedlings. Subsequent secondary succession from natural regeneration would eventually occur on all of the reclaimable acres.

An approved reclamation plan would control pit design and allow replacement of native vegetation on the benches and other disturbed areas. Surface disturbance would be limited to an estimated 35-40 acres. Even with successful implementation of Forest Service proposed reclamation requirements, as many as 20 acres would remain altered from current conditions. It would also take 20-25 years beyond the end of the operation for the vegetation to be fully re-established in disturbed areas.

It has been discussed through the Biological Evaluation process, that through the mining activities taking place, there would be a loss of habitat for small mammals and passerine birds that serve as a prey base for the goshawk. Through cooperation between the Forest Service, and the State of Utah, Department of Natural Resources, Division of Oil, Gas and Mining, alternatives for mitigation measures would be identified to eliminate and/or compensate for any adverse impacts on the species and its habitat.

IV. MANAGEMENT RECOMMENDATIONS

The following mitigation measures are recommended:

1. Any Goshawk nests or any that are discovered will be protected.

2. Known Goshawk sites should be monitored during and after mining activities.

3. All future mining proposals should be inventoried for Goshawks.

4. Any species of Barneby woody aster that is discovered will be protected

5. All future mining activities should be inventoried for Barneby woody aster.

6. Record all locations of sensitive species and implement the appropriate management guidelines for these species.

VI. DETERMINATION

As a result of this evaluation and the requirements, it is my professional determination that the proposed Gardner Canyon Gypsum Mine will have no effects on the goshawk, Barneby woody aster, or the Spotted Frog.

VII. SIGNATURE

Prepared by: Carol Nunn Date: 7/19/94

Reviewed by: Thomas L. Cidwell Date: 7/19/94

LITERATURE CITED

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UINTA NATIONAL FOREST

SPANISH FORK RANGER DISTRICT

BIOLOGICAL ASSESSMENT

FOR THE GARDNER

CANYON GYPSUM MINE PROPOSAL

I. INTRODUCTION

This biological assessment analyzes the potential effects of the Gardner Canyon Gypsum Mine proposal on three species listed by the U. S. Fish and Wildlife Service (FWS): the threatened Ute ladies' tresses, the endangered bald eagle (Haliaeetus leucocephalus), and the endangered American peregrine falcon (Falco peregrinus anatum). Formal consultation or conference will also be determined. As part of the National Environmental Policy Act (NEPA), programs and activities are reviewed, through a biological assessment, to determine their potential affect on threatened, endangered, and proposed species. The purpose is to avoid or minimize impacts to species whose viability has been identified as a concern.

II. PROJECT PROPOSAL

The purpose of this biological assessment is to determine the effects of the proposed Gardner Canyon Gypsum Mine project with relationship to identified threatened, endangered, or proposed species which may occur within the project area. The project entails the proposal to mine gypsum from the Little Doctor, Macfarlane Number 1, and Macfarlane Number 4 claims located within the Mount Nebo Wilderness area Juab County, Utah. The claims are found within Sections 22, 23, 26, and 27, T. 12 S., R. 1 E., Salt Lake Meridian. The claims are described in Patent dated July 22, 1926, recorded in book 103, page 99, records of Juab County, Utah.

The analysis is based on three alternatives; No Action, Proposed Plan of Operations and Non-Wilderness Access. These alternatives are described in the Draft Environmental Impact Statement, Gardner Canyon Gypsum Mine Proposal, Uinta National Forest.

III. CONSULTATION

On August 6, 1990, the Spanish Fork Ranger District, Uinta National Forest requested a list of threatened, endangered, and proposed species that may occur on the Gardner Gypsum Mine project area. On August 30, 1990 the U. S. Fish and Wildlife Service responded to the request and stated that there were no threatened, endangered, proposed, or candidate species in the project area.

Prepared by: Carol Rund Date: 7/19/94

Reviewed by: Thomas L. Mitchell Date: 7/19/94

APPENDIX C
CONSULTATION WITH OTHERS

Public involvement with the project includes:

1. Scoping for the environmental analysis of the special use application and subsequent Plan of Operations.

2. Publication of Notice of Intent in the Federal Register November 23, 1990.

3. Public meeting December 19, 1990.

4. Show-me trip to the mine site May 9, 1991

5. Publication of several articles in local newspapers.

6. Correspondence with key State and Federal organizations.

7. A draft Environmental Impact Statement was filed March 17, 1992. The District received approximately 57 letters on this document.

8. In February of 1993, the Environmental Impact Statement process was stopped, per agreement with the proponent, to allow the Forest Service to pursue the feasibility of a land exchange.

9. In January of 1994, a land exchange was deemed unworkable and the Environmental Impact Statement process was resumed. The District will release a Supplement to the Draft EIS and have a formal comment period.

APPENDIX D
SPECIES FOR SAGEBRUSH/PINYON-JUNIPER/MOUNTAINBRUSH AREA
13-18" PRECIPITATION

GRASSES

Common Name	*Scientific Name*	*Variety/Cultivar*
Intermediate wheatgrass	Agropyron intermedium	
Pubescent wheatgrass	Agropyron trichophorum	
Bluebunch wheatgrass	Agropyron spicatum	
Western wheatgrass	Agropyron smithii	
Streambank wheatgrass	Agropyron riparium	
Crested wheatgrass	Agropyron cristatum	Ephraim, Fairway
Basin wildrye	Elymus cinereus	
Sheep fescue	Festuca ovina	Durar
Thurbers fescue	Festuca thurberi	
Indian ricegrass	Oryzopsis hymenoides	
Big bluegrass	Poa ampla	
Canada bluegrass	Poa compressa	
Canby bluegrass	Poa canbyi	
Sandberg bluegrass	Poa secunda	
Smooth brome	Bromus inermis	
Needle and threadgrass	Stipa comata	
Columbia needlegrass	Stipa columbiana	
Prairie junegrass	Koleria cristata	
Tufted hairgrass	Deschampsia caespitosa	
Orchard grass	Dactylis glomerata	Piaute

FORBS

Common Name	*Scientific Name*	*Variety/Cultivar*
Alfalfa	Meticago sativa	
Cicer milkvetch	Astragus cicer	
Utah vetch	Hedysarum boreale	Utahensis
Small burnet	Sanguisorba minor	
Western yarrow	Achillea millifolia	
Lewis flax	Linum lewisii	
Sulfur buckwheat	Eriogonum umbellatum	
California buckwheat	Eriogonum pacifica	
Sanfoin	Onobrychis viciafolium	
Palmer penstemon	Penstemon palmeri	
Aster	Aster adscendens	
Geranium	Gernaium richardsonii	
Yellow sweetclover	Melilotus officianlis	
Clematis	Clematis ligusticifolia	

SPECIES FOR SAGEBRUSH/PINYON-JUNIPER/MOUNTAINBRUSH AREA
13-18" PRECIPITATION

SHRUBS

Common Name	*Scientific Name*	*Variety/Cultivar*
Desert bitterbrush	Purshia glandulosa	
Bitterbrush	Purshia tridentata	
Cliffrose	Cowania mexicana	
Elderberry	Sambucus cerulea	
Prostrate Summercress	Kochia prostrata	
Mountain mahogany	Cercocarpus montanus	
Curlleaf mahogany	Cercocarpus ledifolius	
Sagebrush	Artemesia tridentata	Wyomingensis or vaseyana
Blacksage	Artemisia nova	
Lowsage	Artemisia arbuscula	
Tarragon	Artemisia drucunculus	
Fourwing saltbush	Atriplex canescens	
Winterfat	Ceratoides lanata	
Serviceberry	Amelanchier alnifolia	
Gooseberry	Ribes velutinum	
Mountain snowberry	Symphoricarpus oreophilus	
Woods rose	Rosa woodsii	

APPENDIX E
SOILS INFORMATION AND MAPS

The information below was taken from a report entitled Soil Survey of Fairfield - Nephi Area, Utah.

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other federal agencies, state agencies including the Agricultural Experiment Stations, and local agencies. The Soil Conservation Service has leadership for the federal part of the National Cooperative Soil Survey. In line with Department of Agriculture policies, benefits of this program are available to all, regardless of race, color, national origin, sex, religion, marital status, or age.

Major fieldwork for this soil survey was performed in the period 1972-1980. Soil names and descriptions were approved in 1980. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1980. This survey was made by the United States Department of Agriculture, Soil Conservation Service and Forest Service; in cooperation with the Department of Interior, Bureau of Land Management, and the Utah Agricultural Experiment Station. It is part of the technical assistance furnished to the Alpine, Juab, Timpanogos, and Nebo Soil Conservation Districts.

PD–Pachic Cryoborolls, north slopes - This map unit consists of shallow to very deep soils on north-facing slopes of mountains. The shallow soils generally are on the higher parts of side slopes, and the very deep soil are on the lower parts of side slopes. These soils formed in colluvium and residuum, are derived predominantly from limestone, sandstone, shale and volcanic rocks. Slopes are 30 to 70 percent and are convex or concave. In most areas the vegetation is mainly trees, grasses, and shrubs. Elevation is 7,000 to 10,000 feet. The average annual precipitation is 16 to 30 inches. The mean annual air temperature is 36 to 45 degrees F, and the average freeze-free season is 30 to 80 days. These soils are variable, but commonly the surface layer is dark brown gravelly loam to stoney loam about 4 to 22 inches thick. The subsoil is dark brown to reddish brown gravelly loam, to very stony clay loam about 6 to 12 inches thick. The substratum is brown to yellowish red gravelly loam to extremely stoney clay loam about 3 to 28 inches thick. Limestone is at a depth of 13 to 62 inches.

Included in this unit are about 20 percent of the steeper Typic Cryoborolls on north-facing and on south-facing slopes, and 5 percent Rock outcrop. The percentage of these inclusions varies from one area to another. Permeability of these Pachic Cryoborolls is moderate to moderately slow. Available water capacity is about 5 to 10 inches. Effective rooting depth is 20 to 60 inches or more.

This unit is used as rangeland and for wildlife habitat and hunting. In most areas the present vegetation is mainly oak, maple, fir, or aspen trees and an understory of grasses and forbs and small clearings of grass and low shrubs. Slope limits access by livestock and results in overgrazing of the less sloping areas. Grazing should be delayed until the soil in this unit is firm and the more desirable forage plants have achieved sufficient growth to withstand grazing pressure. This unit has not been placed in interpretive groups.

LeF–Lundy-rock outcrop complex - This map unit is about 60% Lundy very cobbly loam. However the components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

The Lundy soil is shallow and somewhat excessively drained. It formed in colluvium and residuum derived dominantly from limestone and sandstone. Typically, the surface layer is dark brown very cobbly loam about 6 inches thick. The underlying material is pale brown and brown very cobbly loam about 13 inches thick.

Permeability of the Lundy soil is moderate. Available water capacity is about 1 inch to 2 inches. Water supplying capacity is 2 to 4 inches. Effective rooting depth is 10 to 20 inches. The organic matter content of the surface layer is 1 to 3 percent. Runoff is medium, and the hazard of water erosion is slight. Rock outcrop consists of exposures of barren bedrock, mainly on escarpments and ridges.

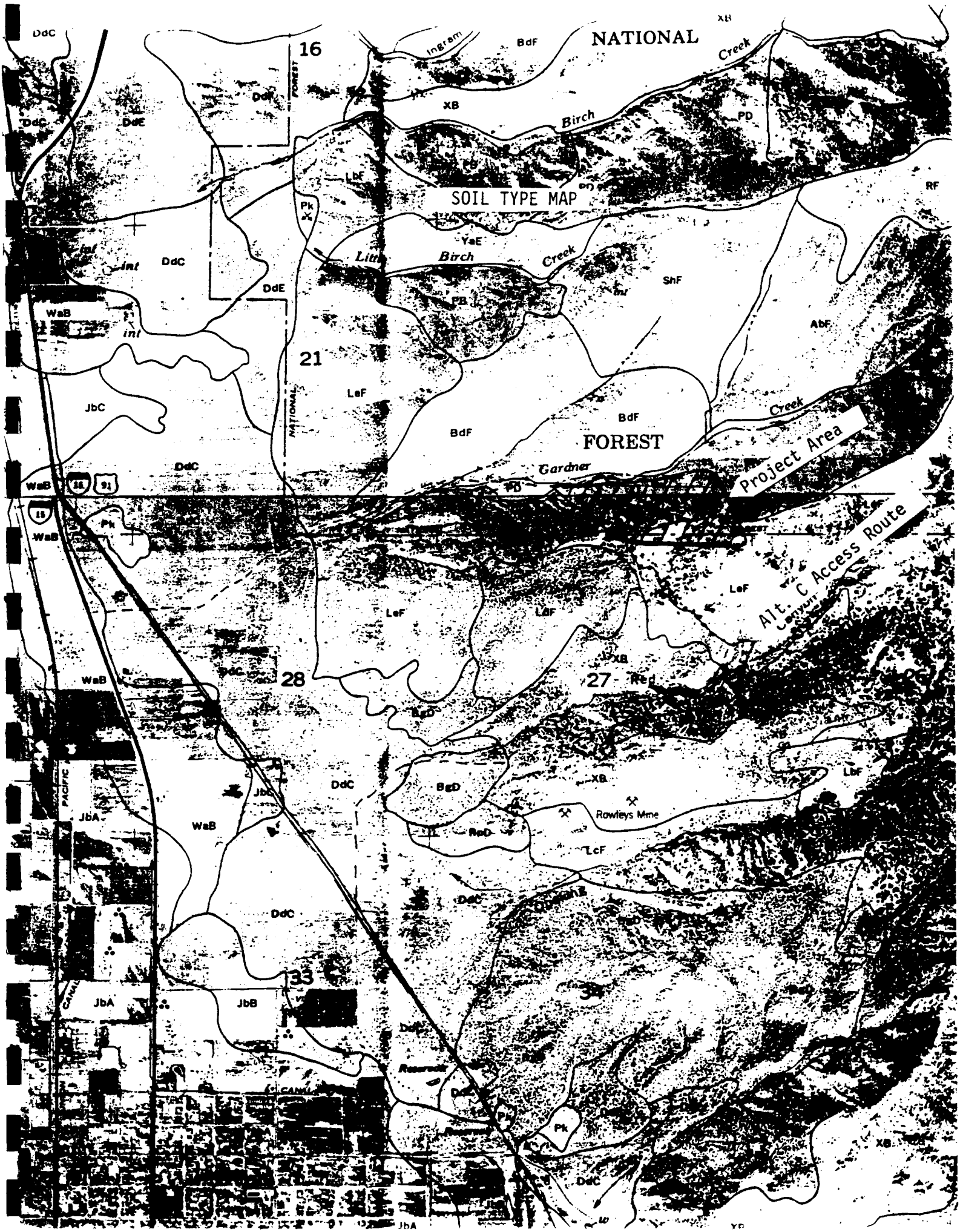
The potential plant community on the Lundy soil is about 65 percent perennial grasses, 3 percent forbs, 7 percent shrubs, and 25 percent trees. Important plant species are bluebunch wheatgrass, Utah juniper, Indian ricegrass, and black sagebrush. The normal expected yield of total air-dried herbage is about 1,500 pounds per acre.

XB–Xeric Torriorthents - Rock outcrop complex - This soil type occurs on the south facing slopes where Alternative C road construction would occur. This soil type is described as follows: Slopes are 30 to 70 percent and are medium in length and convex. In most areas the present vegetation is mainly a sparse cover of shrubs. This unit is about 60 percent Xeric Torriorthents, 30 to 70 percent slopes, and 20 percent rock outcrop. The Xeric Torriorthents is on side slopes, and rock outcrop is on ridges and escarpments. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

The Xeric Torriorthents are shallow to moderately deep and well drained. They formed in residuum and colluvium derived dominantly from shale. These soils are variable, but commonly the surface layer is shaly and very shaly loam to clay loam about 3 inches thick. The underlying material is shaly and very shaly clay loam to silty clay about 4 to 37 inches thick. Bedrock is at a depth of 7 to 40 inches. Depth to bedrock ranges from 10 to 40 inches.

Permeability of the Xeric Torriorthents is slow or very slow. Available water capacity is about 1 inch to 2 inches. Water supplying capacity is 2 to 5 inches. Effective rooting depth is 10 to 40 inches. The organic matter content of the surface layer is 0 to 2 percent. Runoff is rapid, and the hazard of water erosion is high. Rock outcrop consists of exposures of barren shale, mainly on escarpments and ridges.

The potential plant community on this soil is about 20 percent perennial grasses, 10 percent forbs, and 70 percent shrubs. Important plant species are birchleaf, mountain mahogany, bluebunch wheatgrass, and Sandberg bluegrass. Because the soil is steep and shallow, grazing and recreation management practices are poorly suited to this unit. The main limitations are the steepness of slope and the shallow depth of the soil to bedrock.



NATIONAL
FOREST
SOIL TYPE MAP
Project Area
Alt. C Access Route
Ingram
Birch
Creek
Little
Gardner
Rowleys Mine
16
21
27
28
33
34
DdC
DdE
DdF
XB
BdF
PD
LbF
Pk
YaE
ShF
AbF
RF
WaB
JbC
LeF
BgD
RpD
JbA
JbB
Red

APPENDIX F
GLOSSARY

Aesthetic - appreciation, having qualities of beauty.

Affected environment - The natural and physical environment under the administration of one line officer, such as District Ranger or Forest Supervisor.

Alluvial - A soil consisting of recently deposited alluvium and showing practically no horizon development.

Alternatives - One of several policies, plans, or projects proposed for decision making.

Aquatic ecosystems - The physical environment of or pertaining to water-stream channel, lake or pond bed, wetland, water itself, and biotic communities that occur therein.

Avifauna - birds.

Big game - Those species of large mammals normally managed as a sport hunting resource.

Big game winter range - The area available to and used by big game through the winter season.

Biological Environment - That part of the environment dealing with organic life, concerned with organisms or organic life.

Calving areas - Areas usually on spring-fall range, where cow elk give birth to calves and maintain them during their first few days.

CEQ - See Council on Environmental Quality.

CFR - Code of Federal Regulations.

Concern - See management concern.

Connected Actions - Closely related actions which automatically trigger other actions, cannot proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for justification. (40 CFR 1508.25(a)(1))

Consumptive use - A use of resources that reduces the supply, such as logging and mining - See also nonconsumptive use.

Council on Environmental Quality - An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Cover - Vegetation used by big game for protection from hunters and other predators. It is considered to be hiding or thermal cover.

Critical habitat - Key land areas used by wildlife for forage and reproduction.

Cultural Resources - The resources of historical primitive cultures, relating to past civilizations.

Cumulative Actions - Actions which when viewed with other proposed actions have cumulatively significant impacts. Such actions should be discussed in the same environmental document. (40 CFR 1508.25(a)(2))

Cumulative Effects or Impacts - The impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future action regardless of what agency or person undertakes such other actions. Cumulative effects or impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR 1508.7)

Developed recreation - Recreation that requires facilities that, in turn, result in concentrated use of an area. Examples of recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings.

Developed recreation site - Relatively small, distinctly defined area where facilities are provided for concentrated public use; e.g., campgrounds, picnic areas, swimming areas.

Dispersed recreation - A general term referring to recreation use outside the developed recreation site; this includes activities such as scenic driving, hunting, backpacking, and recreation in primitive environments.

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

Draft Environmental Impact Statement - Statement of environmental effects which is required for major Federal action under Section 102 of the National Environmental Policy Act, and released to the public and other agencies for comment and review.

Early seral ecological status - State of vegetation and/or biotic community that develops immediately following the removal or destruction of the vegetation in the area.

Ecological status - The present vegetation and soil protection of an ecological site in relation to the potential natural community for the site.

Effects - Environmental consequences as a result of a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable.

EIS - See Environmental Impact Statement.

Endangered species - Any species of animal or plant that in danger of extinction throughout all or a significant portion of its range. Plants or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.

Environmental Impact Statement (EIS) - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comments and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

E.P.A. - Environmental Protection Agency.

Final Environmental Impact Statement - Final document released in the environmental analysis process. This document contains the final summary of the analysis and it incorporates and responds to all comments received through the process.

Fisheries habitat - Streams, lakes, and reservoirs that support fish.

Floodplains - Lowland and relatively flat areas adjoining inland and costal waters, including as a minimum that area subject to a 1 percent or greater chance of loading in any given year.

Fluvial - Formed or produced by the action of flowing water.

Forage - All browse and non-woody plants available to wildlife and livestock for grazing or harvested for feeding.

Forest Supervisor - The official responsible for administering National Forest System Land in a Forest Service administrative unit, which may consist of two or more National Forests or all the Forests within a state. He/she reports to the Regional Forester.

Forest System Roads - Roads that are part of the Forest development transportation system, which includes all existing and planned roads as well as other special and terminal facilities designated as Forest development transportation facilities.

Fugitive Dust - Airborne dust particles which become a component of the atmosphere until such time as they settle out.

Game species - Any species of wildlife or fish for which seasons and bag limits have been prescribed and which are normally harvested by hunters, trappers, and fishermen under state or Federal laws, codes, and regulations.

Geomorphology - The geological study of the configuration and evolution of land forms.

Grass/forb - An early Forest successional stage where grasses and forbs are the dominant vegetation.

Guideline - A set of land, resource, or human-use values or parameters meant to generally constrain organizational actions, usually stated as flexible and occasionally optimal limits in this document.

NEPA - See National Environmental Policy Act.

NFS - See National Forest System Land.

No-action alternative - The most likely condition expected to exist in the future if current management direction were to continue unchanged.

Non-attainment - Referring to air quality - not able to exceed state standards. Defined as an area which currently complies with the National Ambient Air Quality Standards.

Nonconsumptive use - That use of a resource that does not reduce the supply. For example, nonconsumptive use of water includes hydroelectric power generation, boating, swimming, and fishing.

Nongame - Species of animals which are not managed for sport hunting resource.

Outstanding Mineral Rights - Refers to ownership of mineral rights only where these rights were acquired from an owner who at the time of deeding had ownership of mineral rights only. Surface rights had been deeded previously to a separate owner.

Patented - The conveyance by which the Nation passes its title to portions of the public domain.

Permeability - Ability of water to spread or flow throughout soil.

Physical Environment - Pertaining to material things.

Plan of Operations - Formalized plan describing mining operations.

Public Issue - Subject or question of widespread public interest relating to management of the National Forest System.

Public Law 98-428 - Utah Wilderness Bill which set forth and described various Wilderness areas including Mount Nebo Wilderness.

Purpose and Need - A Statement which briefly specifies the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.

Range of Alternatives - An alternative is one way of managing the Forest expressed as management emphasis leading to a unique set of goods and services being available to the public. A range of alternatives is then several different ways of managing the Forest, offering different levels of goods and services.

Record of Decision - A document separate from but associated with an Environmental Impact Statement that publicly and officially discloses the responsible official's decision on which alternative assessed in the Environmental Impact Statement to implement.

Revegetate - Re-establish vegetation.

Reclamation - Actions performed during or after mining operations to shape, stabilize, revegetate, or otherwise treat the land affected to achieve a safe, stable ecological condition and use which will be consistent with local environmental conditions.

Reclamation Plan - Written plan describing details of how disturbed area will be reclaimed and restored.

Riparian - Areas of land directly influenced by water. They usually have visible vegetative or physical characteristics reflecting this water influence. Stream sides, lake borders, or marshes are typical riparian areas.

Riparian Ecosystems - Transition between the aquatic ecosystem and the adjacent upland terrestrial ecosystem and is identified by soil characteristics and distinctive vegetation communities that require free, unbound water.

Said Lands - Lands which support outstanding mineral rights, predicated on the boundaries of mining claims which were patented, then split with separate ownership of the surface estate and mineral estate.

Scope - See scoping process.

Scoping process - The public land management activities used to determine the range of actions, alternatives, and impacts to be considered in an Environmental Impact Statement.

Sediment - Solid material, both mineral and organic, that is in suspension being transported, or has been moved from its site of origin by air, water, gravity, or ice.

Sensitive species - Plant or animal species susceptible or vulnerable to activity impacts or habitat alterations.

Seral condition - The unique characteristics of a biotic community which is a developmental, transitory stage in an orderly ecologic succession involving changes in species, structure, and community processes with time.

Small game - Birds and small mammals normally hunted or trapped.

Standard and Guideline - A principle requiring a specific level of attainment, a rule to measure against; a mandatory requirement.

Successional Stage - Stage or recognizable condition of a plant community that occurs during its development from bare ground to climax; for example, coniferous forests progress through six recognized stages: Grass-forb, shrub-seedlings, pole-sapling, young, mature, old growth.

Threatened species - Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future.

Tiering - Refers to the coverage of general matters in broader environmental impact statements or environmental assessments with subsequent other related statements in environmental assessments

Habitat - The place where a plant or animal naturally or normally lives or grows.

Indicator species - A plant or animal species adapted to a particular kind of environment. Its presence is sufficient indication that specific habitat conditions are also present.

Interdisciplinary Team - A team of one or more individuals representing areas of knowledge and skills focusing on the same task, problem, or subject. Team member interaction provides necessary insight to all stages of the process.

Irretrievable - Not capable of being retrieved or recovered.

Irreversible - Incapable of being reversed.

Issue - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process.

Management concern - An issue, problem, or a condition which limits the range of management practices identified by the Forest Service in the planning process.

Management Indicator Species - Species selected because its population changes indicate effects of management activities on the plant and animal community. A species whose condition can be used to assess the impacts of management actions on a particular area.

Management Opportunity - Statement of general actions, measures or treatments that address a public issue or management concern in a favorable way.

Management Prescription - A set of land and resource management policies that creates a desired future condition over time.

Multiple Use - The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

National Environmental Policy Act (NEPA) - An act to declare a National policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, to enrich the understanding of the ecological systems and natural resources important to the Nation, and to establish a Council on Environmental Quality.

National Forest System Land - National Forests, National Grasslands, or purchase units, and other lands under the management of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

incorporating, by reference, the discussions contained in the previous document, solely on the issues specific to the statement subsequently prepared.

Uinta National Forest - The administrative title of the National Forest System land administered by the Forest Supervisor in Provo, Utah.

Unreclaimable - An altered condition of the physical environment that precludes reclamation as defined. The affected area might be stabilized but unable to be revegetated. It may not be able to achieve an ecological condition consistent with local environmental conditions - this would be unreclaimable.

Untrammeled - In the context of the Wilderness Act, an untrammeled area is where human influence does not impede the free play of natural forces or interfere with natural processes in the ecosystem.

VQO - An abbreviation of Visual Quality Objective.

Visual Quality Objective(VQO) - Categories of acceptable landscape alteration measured in degrees of deviation from the natural-appearing landscape.

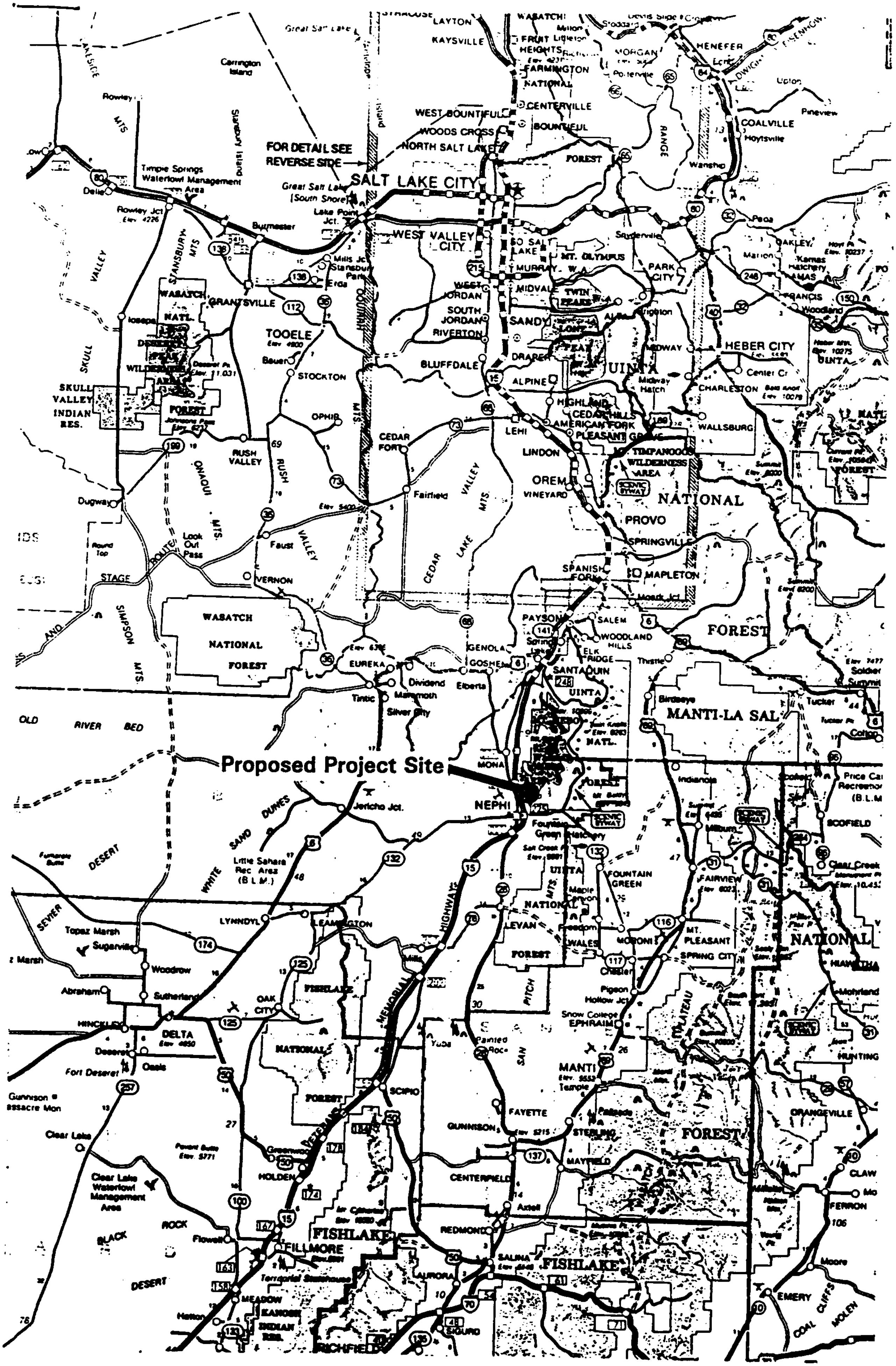
Watershed - The entire area that contributes to a drainage system or stream.

Wetlands - Areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances do not support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

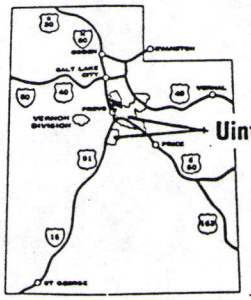
Wilderness - A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Winter range - Refer to Big Game Winter Range

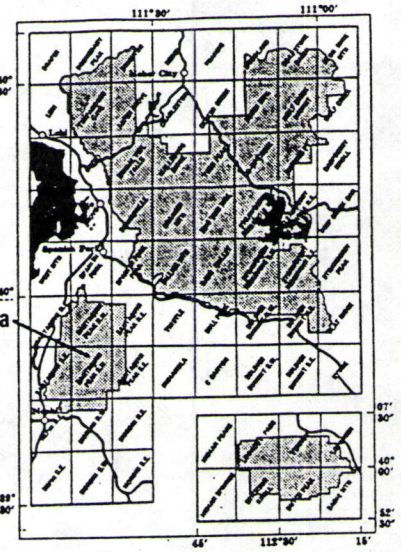
APPENDIX G
MAPS



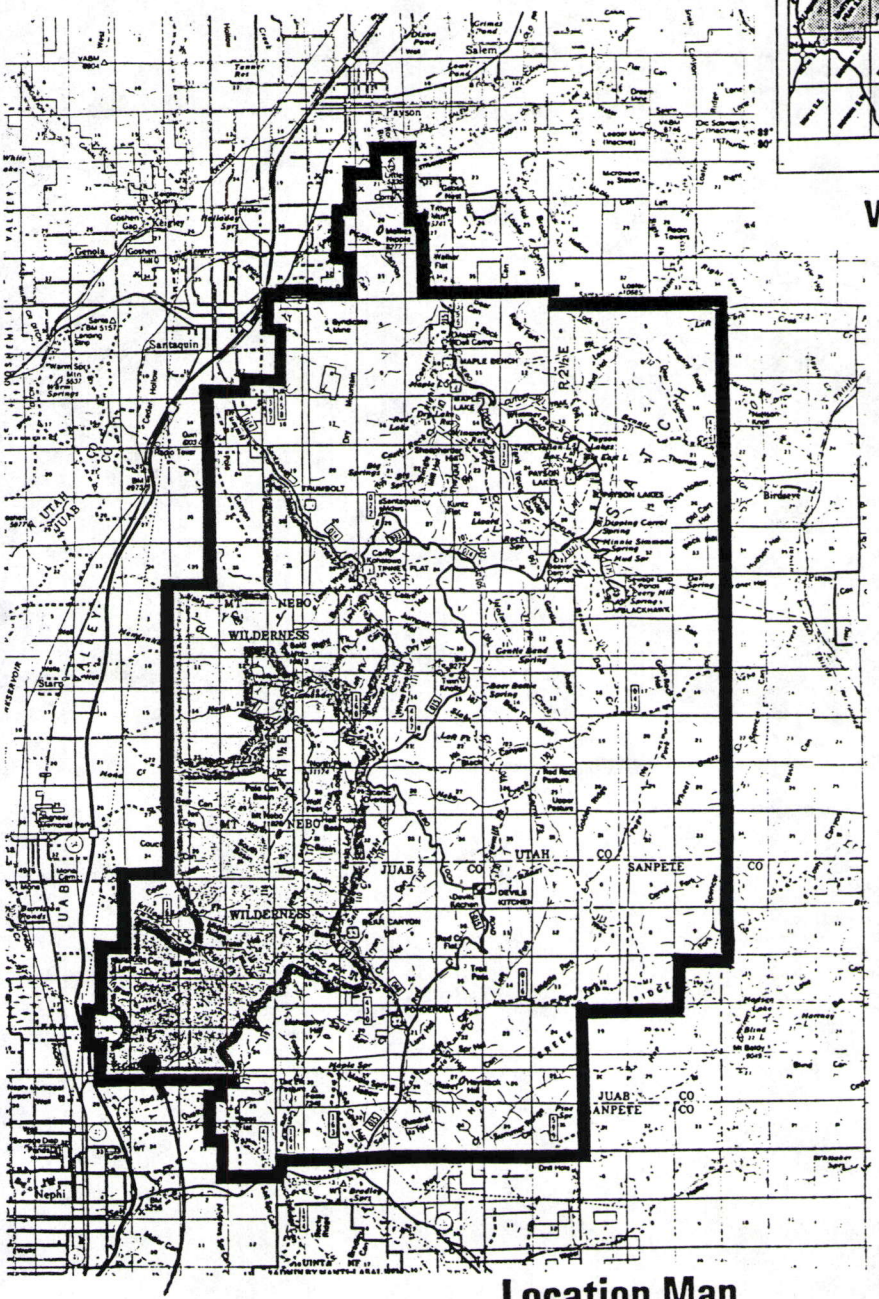
Proposed Project Site
FOR DETAIL SEE
REVERSE SIDE
SALT LAKE CITY
LAYTON
KAYSVILLE
FARMINGTON
CENTERVILLE
BOUNTIFUL
WEST BOUNTIFUL
WOODS CROSS
NORTH SALT LAKE
WEST VALLEY CITY
MURRAY
MIDVALE
WEST JORDAN
SOUTH JORDAN
RIVERTON
SANDY
DRAPER
BLUFFDALE
ALPINE
HIGHLAND
CEDAR HILLS
AMERICAN FORK
PLEASANT GROVE
LEHI
LINDON
OREM
VINEYARD
PROVO
SPRINGVILLE
SPANISH FORK
MAPLETON
PAYSON
SALEM
WOODLAND HILLS
ELK RIDGE
SANTAQUIN
GENOLA
GOSHEN
Elberta
EUREKA
Mammoth
Silver City
Tintic
MONA
NEPHI
HEBER CITY
PARK CITY
COALVILLE
HENEFER
MORGAN
TOOELE
GRANTSVILLE
STOCKTON
OPHIR
RUSH VALLEY
CEDAR FORT
Fairfield
Faust
VERNON
Dugway
WASATCH NATIONAL FOREST
UINTA NATIONAL FOREST
MANTI-LA SAL
FISHLAKE NATIONAL FOREST
FOUNTAIN GREEN
FAIRVIEW
MT. PLEASANT
MORONI
SPRING CITY
EPHRAIM
MANTI
GUNNISON
CENTERFIELD
MAYFIELD
SALINA
AURORA
RICHFIELD
SIGURD
LEVAN
WALES
SCIPIO
HOLDEN
FILLMORE
MEADOW
DELTA
HINCKLEY
LYNNDYL
LEAMINGTON
OAK CITY
SCOFIELD
HUNTINGTON
ORANGEVILLE
FERRON
EMERY
CLAWSON
Jericho Jct.
Little Sahara Rec. Area (B.L.M.)
WHITE SAND DUNES
OLD RIVER BED
SEVIER DESERT
BLACK ROCK DESERT
SKULL VALLEY INDIAN RES.
KANOSH INDIAN RES.



Forest Vicinity Map



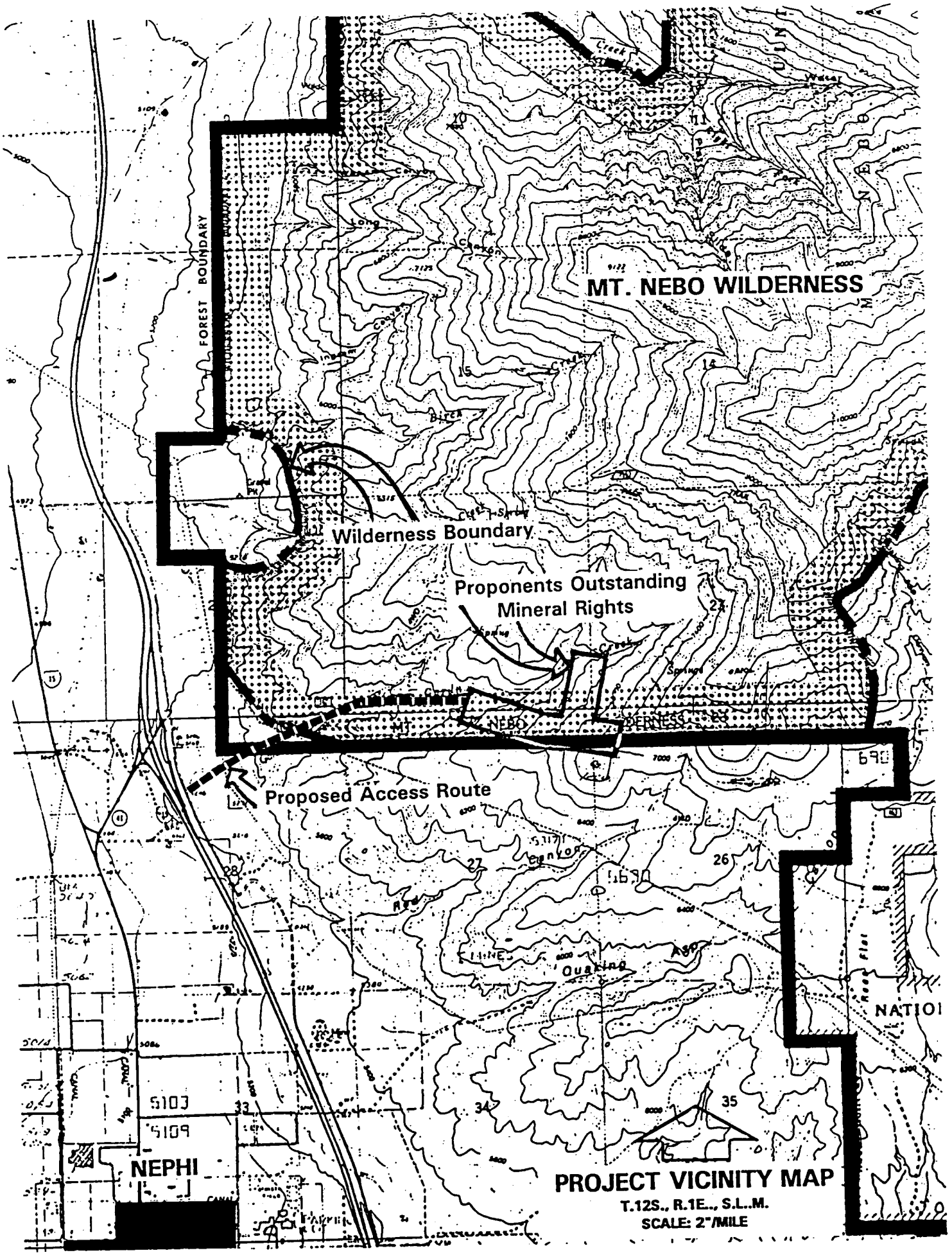
Vicinity Map

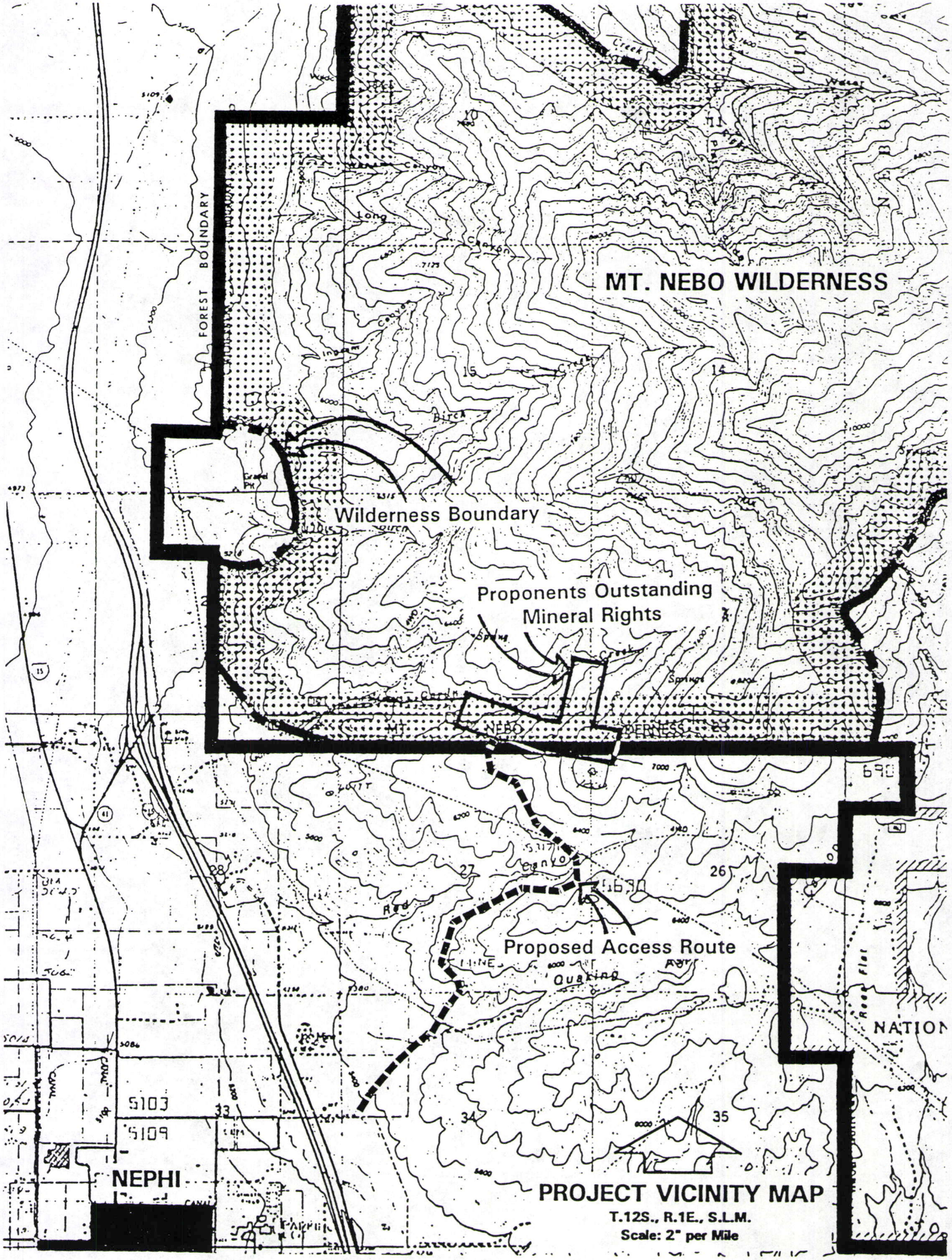


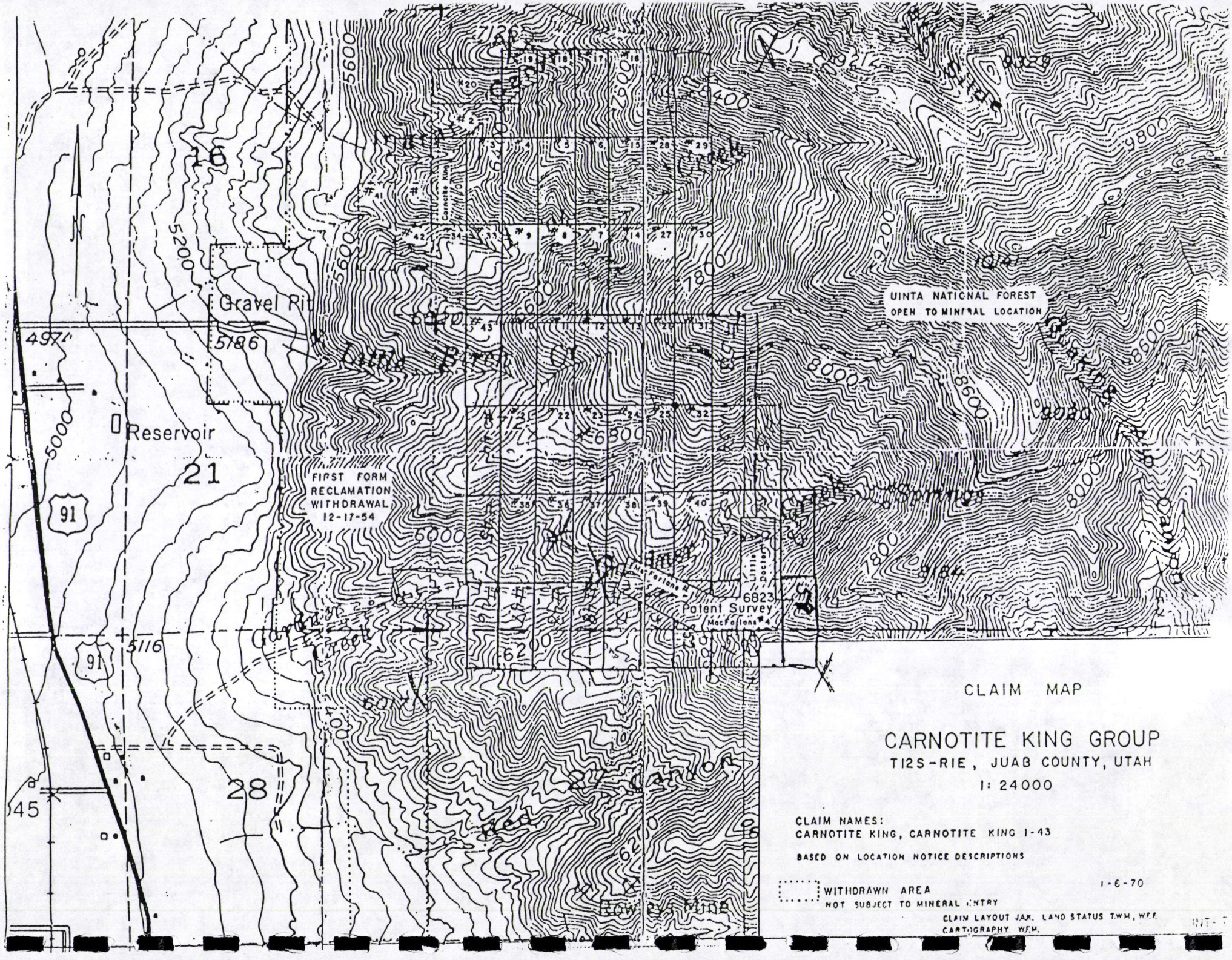
Proposed Project Site

Location Map

N


MT. NEBO WILDERNESS
FOREST BOUNDARY
Wilderness Boundary
Proponents Outstanding
Mineral Rights
Proposed Access Route
NEPHI
NATIO
PROJECT VICINITY MAP
T.12S., R.1E., S.L.M.
SCALE: 2"/MILE


MT. NEBO WILDERNESS
Wilderness Boundary
Proponents Outstanding
Mineral Rights
Proposed Access Route
FOREST BOUNDARY
NEPHI
NATION
PROJECT VICINITY MAP
T.12S., R.1E., S.L.M.
Scale: 2" per Mile


UINTA NATIONAL FOREST
OPEN TO MINERAL LOCATION
FIRST FORM
RECLAMATION
WITHDRAWAL
12-17-54
Gravel Pit
Reservoir
Patent Survey
Bowley's Mine
CLAIM MAP
CARNOTITE KING GROUP
T12S-R1E, JUAB COUNTY, UTAH
1: 24000
CLAIM NAMES:
CARNOTITE KING, CARNOTITE KING 1-43
BASED ON LOCATION NOTICE DESCRIPTIONS
WITHDRAWN AREA
NOT SUBJECT TO MINERAL ENTRY
1-6-70
CLAIM LAYOUT JAK. LAND STATUS T.W.H., W.E.E.
CARTOGRAPHY W.E.M.

APPENDIX H
SUMMARY OF RESPONSE TO COMMENTS

This section contains comments from two documents, the Draft EIS and the Supplement to the Draft. The letters are numbered sequentially, but they are divided into two groups. Group A contains comments from the Draft, Group B contains comments from the Supplement. All public comments received from the Draft were grouped in one of the following three sections described below:

SECTION #1:

Includes all letters and testimony that were *generally broad* in nature although they did address specific common points in the Draft Environmental Impact Statement (DEIS). Many letters expressed concern or opinion about wilderness and mineral values and how wilderness should be protected. The Agency included these values in the analysis. For an overall response to the values associated with these letters, please read Chapter I. Chapter II contains more complete information on opportunities for acquisition through purchase or exchange of the mineral rights. All of these letters were reproduced in their entirety.

SECTION #2:

Includes all letters and testimony that included comments addressing *specific* points of the Draft Environmental Impact Statement. Some of these contained specific challenges to the DEIS which are answered in the Agency response. Some resulted in changes to the DEIS. All of these letters were reproduced in their entirety.

SECTION #3:

Includes all letters and testimony from local, State, and Federal government agencies and elected officials. These comments have been reproduced in their entirety followed by Agency response.

Comment letters received in response to the Draft Environmental Impact Statement for the Gardner Canyon Gypsum Mine Proposal are published herein, along with the Forest Service response to them. Reference letters are provided to tie responses to the letters. Letter numbers are also listed.

The following is an index of all comment letters received.

A. Comment letters received on the Draft:

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

FILE COPY (1)

DAQP-107-92

Norman H. Bangerter
Governor
Kenneth L. Alkema
Executive Director
F. Burrell Cardner
Director

1950 West North Temple
Salt Lake City, Utah
(801) 538-4000
(801) 538-4099 Fax

Reply to: State of Utah
Division of Air Quality
Department of Environmental Quality
Salt Lake City, Utah 84114-4820

UINTA NF

March 18, 1992

Peter W. Karp
Forest Supervisor
Uinta National Forest
P.O. Box 1428
Provo, Utah 84603

Re: Gardner Canyon Gypsum Mine Draft EIS

Dear Mr. Karp:

The draft Environmental Impact Statement for the Gardner Canyon Gypsum Mine has been reviewed by the Division of Air Quality, and the following comments should be considered in the preparation of the final document.

1. (I-1 - last line): The Utah Department of Environmental Quality has the stated responsibility.

2. (I-2 - first line): The required permit would be from the Utah Air Quality Board.

3. (II-4.2) The state does not have regulations. Therefore, the construction and operations activities would be in accordance with applicable state air quality rules and standards. Also, dust abatement would be required on the entire mining operation, including overburden piles, and any roads, paved or unpaved, impacted by the operation.

4. (II-8) It is not possible to assume that the dust created from this project would be "minor." Such a decision can only be made after reviewing the construction and operation plans for the mine and ancillary systems. Because no review has been made, as with the other columns, it should only be noted that there will be "increased road dust and exhaust emissions, in addition to the fugitive dust caused by the development and operation of the mine." 1-1

5. (III-3) The project is located in an attainment area. Also, the construction and operation of the proposed mine is covered by the Air Conservation Rules of the Air Quality Board and the Utah Department of Environmental Quality, Division of Air Quality.

If you have any questions concerning the construction of this mine, please contact Don Robinson, manager of the Engineering Section of the Division of Air Quality at (801)538-4000.

Sincerely,

Dave McNeill, Manager
Planning Section
Division of Air Quality

Printed on recycled paper

1-1
Corrected in the text (recommendations were adopted).

United States Department of Agriculture

Soil Conservation Service

P.O. Box 11350
Salt Lake City, Utah 84147

FILE COPY②

UINTA NF

Arpril 30, 1992

MAY 5 92

UINTA NATIONAL FOREST

MAY 5 1992

Mr. Peter W. Karp
Forest Supervisor
Uinta National Forest
PO Box 1428
Provo, Utah 84603

Dear Mr. Karp:

We have reviewed the Draft Environmental Impact Statement for the Gardner Canyon Gypsum Mine Proposal on the Uinta National Forest, Utah, Juab County. We have the following comments:

1. There is little reference to erosion and sediment yield data or models in the Present condition, Future Without Proposal condition, and Future With Proposal condition. The pertinent erosion processes are either inadequately discussed or not mentioned: channel erosion, upland concentrated flow erosion, debris flow potential. Suggest using the PSIAC, 1968 Sediment Yield Procedure, direct volume debris flow estimates, and Soil Conservation Service (SCS) California Direct Volume Channel Erosion Model (1983) to characterize the erosion and sediment yield processes in the Present and Future conditions. 2-1

2. It is hard to understand that there will be little water quality impact if the gypsum will be dozed to stream channel level for loading by a front end loader. Erosion and storm flow processes will certainly impact on this stock pile of gypsum causing some transport to occur. This situation should be addressed. 2-2

3. Formal technical references are made throughout the document but there is no report section that lists the full reference citations. 2-3

4. There is very sketchy geologic data involving rock type, rock strength, stratigraphy, or a geologic map of the area. More geologic information is needed. 2-4

5. What measures will be taken to control gypsum and sediment impact after the area is considered mined-out? If water is allowed to pond in the abandoned open pit then there is a potential for groundwater pollution in the recharge area of aquifers relating to Nephi. If positive drainage is maintained in the abandoned pit, then there will be a potential for surface water contamination and soil contamination with gypsum in the Nephi area. 2-5

The Soil Conservation Service is an agency of the Department of Agriculture

2-1
We have incorporated additional information on erosion and sediment in Chapter III - Affected Environment (page III-3). Also, Chapter IV - Environmental Consequences, has been revised slightly. We do feel that the future condition with the proposal has been adequately covered (see pages IV-3 and IV-6). This information was developed by using accepted hydrologic methods using runoff curve numbers to predict changes in runoff, peak flows, and sediment production, tempered with many years of field experience of our hydrologist. Given that no specific information is available on the planned mining activity, it is felt that this methodology adequately describes the magnitude of the anticipated impacts of the proposal.

2-2
The DEIS does not indicate that water quality will not be impacted. The second sentence on page IV-5 reads "The quality of water in the intermittent channel below the mining area would decrease as a result of increased sediment associated with increased surface runoff." Previously, the document predicted that flooding would contain about two-thirds rock, soil, and other debris. Such a situation would certainly not constitute "little water quality impact." Currently, the water used by the Gardner Canyon Irrigation Company is all diverted upstream from the location where gypsum will be pushed to the canyon bottom. The stream is dry below that point except during periods of heavy runoff. Any work that is allowed upstream from this point would require mitigation to protect the quality of water diverted into the irrigation company's transmission line.

2-3
No bibliography was included in the DEIS but the FEIS will include a bibliography which lists the citations referenced.

2-4
The section on geomorphology has been slightly revised but it is questionable that the inclusion of a geologic map would provide information of a nature that is needed for impact assessment. For this reason, and because of the size and cost of this map, it has not been included in the supplement to the Draft.

2-5
Your concerns with impacts on ground water are addressed in the section covering "Ground Water" on pages IV-5 and IV-6. It addresses this situation and provides for mitigation measures to resolve this concern.

If you have questions concerning the erosion modeling please contact Robert Rasely, SCS geologist, at (801) 524-5025.

We appreciate the opportunity to review and comment.

Sincerely,

FRANCIS T. HOLT, Acting
State Conservationist

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Central Region
1115 North Main Street
Springville, Utah 84663-1056
801-489-5678

FILE COPY

③

UINTA NATIONAL FOREST
MAY 6 1992
UINTA NF
MAY 6 '92

April 17, 1992

Peter W. Karp
Uinta National Forest
P.O. Box 1428
Provo, Utah 84601

Dear Pete,

We have reviewed the Gardner Canyon Gypsum Mine EIS and offer the following comments for your consideration.

Page II-6 - Alternative C, non-wilderness access

This alternative would require a right-of-way across one of the Division-owned parcels that make up the North Nebo Wildlife Management Area. The proposed access road would cross Division land in the N1/2NE1/4 of Section 27, Township 12 South, Range 1 East. This parcel was purchased from the Bureau of Land Management with Federal Aid to Wildlife Restoration funds. It was acquired for the benefit of wildlife. Road construction would not be a compatible use. The Division of Wildlife Resources does not view this alternative as a viable option. 3-1

Page III-4 - Wildlife

Sage grouse is listed as a common species and one of the management indicator species for the area. The nearest known strutting ground is west of Fountain Green. Although birds may have used this area in the past, the distribution of this population is not known to extend into the Salt Creek drainage. A golden eagle nest site is located north of Gardner Canyon in the mouth of Birch Creek and another site is located to the south in Quaking Asp Canyon. These sites are just over a mile distance from the mine site. 3-2

Page IV-14

We disagree with the finding that the project will not have a significant impact on wildlife. The Division considers all high priority value mule deer winter range habitat as intensive use 3-3

an equal opportunity employer

3-1
Section 1502.14 of the Federal Regulations for implementing the procedural provisions of the National Environmental Policy Act, requires the EIS to examine all reasonable alternatives to the proposal. Reasonable alternatives include those that are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant or other interested parties. Your issue has been incorporated into the document.

3-2
The information supplied has been utilized to revise the supplement.

3-3
We agree that there will be an impact on wildlife. The FEIS has been revised to reflect your comment. We agree that the impacts to wildlife habitat will need to be mitigated. As the permitting agent for the mine, the Utah Division of Oil, Gas, and Mining (DOGMI) will approve the project and will be responsible for development of a reclamation plan. A bond will be required to assure that required reclamation is completed. The Forest Service will have input into the reclamation plan and will recommend needed mitigation. We will pass your suggestions on to (DOGMI) for their consideration and will work diligently to assure that needed measures are included in the plan. One wildlife mitigation measure has been revised to require off-site mitigation to compensate for portions of the disturbed area that cannot be successfully reclaimed.

areas for mule deer. Intensive use areas (as differentiated from sensitive use areas) are not necessary to sustain the existence of mule deer. Generally, these areas just require restoration following disturbance to retain their value for wintering mule deer. However, in this case 50 acres are estimated to be non-reclaimable. The owner/operator should be held responsible to improve the habitat value of at least 50 acres off-site to compensate for values lost at the mine site. We recommend that the Spanish Fork Ranger District identify a mitigation site on high priority value or critical value mule deer habitat in the vicinity of Gardner Canyon that currently provides minimal habitat for wintering deer. The site must be capable of supporting a stand of transplanted sagebrush. Shrubs should be transplanted at the rate of at least 400 per acre and the owner/operator should be required to hire trained personnel to plant the seedlings. We recommend the use of the State Prison Flame-In-Goes. 3-3

Cost Estimate

20,000 sagebrush seedlings	@ $.35	-	$7,000
20-man crew (5 days)	@ $800	-	$4,000
	Total	-	$11,000

Another option would be to purchase 50 acres adjoining the Uinta National Forest that would lead to the future protection of additional deer winter range.

Thanks for the opportunity to comment on this EIS.

Sincerely,

Rodney T. John
Regional Supervisor

cc: Catherine Quinn, SLO
Howard Jacquart, Juab Co. Conservation Officer
Glenn Beagle, Lone Peak State Nursery
Clark Johnson, U.S. Fish and Wildlife Service

FILE COPY (4)

UINTA NF

MAY 1 1 '92

May 5, 1992

Peter W. Karp, Forest Supervisor
Uintah National Forest
P.O. Box 1428
88 West 100 North
Provo, Ut 84601

Dear Sir:

In regard to the proposed Gypsum Mining Plan in Gardner Canyon I wish the following comments to be taken into consideration in the Final Environmental Impact Statement.

As an irrigation water user in the Gardner Canyon Irrigation Company I object to any action that would jeopardize, interfere or diminish in any way any of my irrigation water rights in Gardner Canyon.

I would be particularly concerned with activities such as blasting that could possibly shut off, affect or alter spring flows or affect the water sources in any way. 4-1

I also oppose any activities such as digging, bulldozing or any earth moving that may cause a potential land slide or earth slump in the vicinity of these springs or irrigation facilities.

I would like to request that complete and necessary restorations be incorporated into the Environmental Impact Statement to adequately protect all water rights in Gardner Canyon from any and all potential damages or impairments. 4-2

Sincerely,

Don Jones

Don Jones
Box 135
Nephi, Utah 84648

4-1
The Forest Service will work diligently to assure that any impacts on existing water rights or water quality are mitigated by the permittee. The bond mentioned in the previous response will be required to take care of such situations. In addition to actions taken by the Forest Service and the State of Utah, the Gardner Canyon Irrigation Company has a legal right to their water resource.

4-2
The water right is identified in the EIS and provisions to adequately protect this right are identified in the document.

(5)

Christopher R. Jones, M.D.
1580 Sunnydale Lane
Salt Lake County, Utah 84108

FILE COPY

5/23/92

UINTA NF

Peter Karp
Uinta Forest Supervisor

Dear Mr Karp,

I understand the Forest Service prefers to see gypsum strip mining in the Mount Nebo Wilderness Area. This would be a mistake. The long-term wilderness and recreation values far out weigh the short-term profits that would accrue to a small number of investors. 5-1

Sincerely,

C R Jones

5-1
See section #1 response.

6 - 1
This letter was dropped because it is not applicable to the project.

VISION For The Environment

GENE A. THOMPSON
CANDIDATE FOR STATE REPRESENTATIVE
DISTRICT #2

FILE COPY (7)
UINTA NF

12 '92

Mr Peter Karp

Uinta Forest Supv:

I am writing to request a copy of the Environmental Impact Study regarding gypsum strip mining in the Mt Nebo Wilderness Area.

It is my understanding that the Forest Service believes it has no authority to regulate this activity, under the guise of the 1872 Mining Law. This law was adopted to cover valuable and precious mineral deposits and clearly was not intended to apply to common variety minerals such as gypsum. 7-1

The Forest Service, under federal law has the obligation of ensuring the protection of public resources under its jurisdiction, which includes the protection of wildlife and the assurance that basic environmental and health requirements for clean water and soil protection are met. 7-2

I would like also to request an explanation as to the reasoning employed by the USFS when it chose not to acquire the mineral rights at the time of purchase in 1965. 7-3

Sincerely

Gene A. Thompson

Gene A. Thompson
847 W 700 S
Brigham City Ut. 84302

Phone # 734-2077

7-1
The mineral rights addressed in this case are based on a mineral patent issued in 1926. In this case, gypsum is a locatable mineral (see page I-3).

7-2
See section #1 response.

7-3
See section on Federal Acquisition of Mineral Estate (pages II-2 and II-3).

8-1

See section #1 response. There were a number of letters that expressed some or all of these basic points:

1. Reissue the DEIS with a more complete range of alternatives.
2. Pursue a buyout or trade solution.
3. Implement the maximum reclamation measures.
4. Wilderness values exceed mineral values.
5. The Forest Service has a responsibility to protect public lands.

This group of letters is discussed in section #1 of the response to public comment. These values and common concerns were addressed in the revision of Chapter I. Detailed analysis of the purchase/exchange can be found on pages II-2 through II-4.

May 28, 1982

Dear Sir:

Re: Open-Pit Mine Proposed for Mt. Nebo Wilderness

In regard to the above matter, I respectfully suggest that the Forest Service reissue the draft EIS and include a more complete range of alternatives to meet public responsibility to protect public lands.

Also, inasmuch as we are dealing with the Mayor of Nephi, it would seem there could be an appeal to his political interest to accept the appraised buy-out or a trade alternative. If this is not possible, he certainly should be held fully responsible for total reclamation, bonding and compliance with all laws and regulations that protect

-2-

Surface values.

Sincerely,

2060 East 4800 South
Salt Lake City, Utah 84117
84117

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JUN 2 '92

8-1

8

(9)

FILE COPY

UINTA N[illegible]

[illegible] 29 '92

5-24-92

HELLO,

I'M WRITING TO EXPRESS MY CONCERN ABOUT THE PROPOSED GYPSUM MINE IN THE MT. NEBO WILDERNESS.

ACCORDING TO THE ARTICLE I READ ABOUT THIS ISSUE, STATE LAW WILL ALLOW THIS TO OCCUR. MAYBE A CHANGE IN UTAH'S LAW IS IN ORDER. THE IDEA OF AN OPEN PIT MINE IN A WILDERNESS AREA LEAVES ME DISGUSTED!

I REALIZE THAT $70,000 IS A LOT OF MONEY. I DON'T THINK THE FOREST SERVICE SHOULD BUY UP EVERY CLAIM WHEN SOME GREEDY ASSHOLE LIKE ROBERT STEELE TRIES TO EXTORT MONEY FROM THE PUBLIC TREASURY. THERE MUST BE SOME OTHER WAY TO STOP THIS. MAYBE JUST ALLOW HIM TO MINE THE PROPERTY & HOPE HE DOESN'T DO IT, OR PERHAPS REQUIRE HIM TO RE-CLAIM THE LAND AFTER HE'S DONE. I.E. DISSAPER THE ROAD, FILL IN THE HOLE, REPLACE VEGITATION, MITIGATE HABITAT LOSS FOR WILDLIFE, ETC, ETC. THE COST MAY MAKE HIM THINK OTHERWISE.

GOOD LUCK ON PRESERVING OUR NATIONAL TREASURE'S.

SINCERELY,

Jack Carpenter

9-1

9-1
See section #1 response and response #8-1.

Dear Mr. Karp,

I'm writing you concerning the open-pit mine proposed for Mt. Nebo Wilderness Area.

After reading the information sent to me by the Utah Wilderness Social club, I'm shocked to think such a thing could happen! It must be stopped! Please reissue the draft E.I.S and include more responsibility to protecting public lands. The E.I.S. must consider a buyout or trade of mineral rights in the area. The impact on the wildlife, sensitive species and the wilderness are of great importants. 10-1

10-1
See section #1 response and response #8-1.

The wilderness area is a sanctuary for all God's creatures and must stay that way.
Don't let the Mt Nebo turn into the Bingham canyon, a Kennecott wasteland.
Please have a total reclamation, bonding and compliance with all laws and regulations that protect surface values.

Sincerely concerned
Janet Howard

10-1

FILE

UIN

Mark

FILE COPY
UINTA NF (11)
JUN 01 '92

Robert H.Weirick
P O Box 65584
Salt Lake City, UT 84165-0584

May 27, 1992

Uinta National Forest
P O Box 1428
Provo, UT 84603

Dear Mr. Karp,

I am writing to voice my opinion regrding the proposed open-pit gypsum mine in the Mount Nebo Wilderness Area. I worked as the plant engineer in one of the gypsum plants in Sigurd, Utah nearly 30 years ago and from that experience know the extent of probable damage to the landscape that will occur in the Mount Nebo Wilderness Area if the gypsum deposit there is exploited, unthinkable!

Gypsum is common from there to well South of Sigurd and as the bulk commodity that it is, it gets very expensive to haul to the only remaining operating plant in Sigurd. There are other deposits closer to the plant site than Nephi that could provide gypsum at lower cost and without disturbing the designated wilderness.

Mr. Steele, as a public official as well as a responsible citizen, is shamefully exploiting the system in this venture. It is your job and mine to keep him in line and out of the wilderness except as a respectful visitor to the heritage that it represents. 11-1

I ask you to reissue the draft Environmental Impact Statement to include more alternatives and to meet the mandate of the Forest Service to assure the responsibility to protect public lands and resources. The EIS must consider a buyout or trade option and a more careful analysis of both the legal responsibilities of protecting designated wilderness and the impacts of mining in the wilderness area on wildlife and sensitive species. The issues of bonding and compliance with all laws and regulations protecting surface values pertaining to operation and reclamation will be moot if the proposal is properly handled in my opinion, because no mining will occur.

In the greater public interest,

Robert H Weirick

Robert H. Weirick

11-1
See section #1 response and response #8-1.

FILE COPY

(12)

Nancy Orr
4900 Hargrove Road #106 • Raleigh, North Carolina 27606 • (919) 870-3118

UINTA NF

JUN 08 '92

1 June 1992

Mr. Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, Utah 84603

Mr. Karp:

I understand that there is a draft EIS up for public comment which concerns the proposed opening of an open pit gypsum mine in the Mt. Nebo Wilderness area. I believe that rather than risk irreparable harm to that wilderness area, the Forest Service should aggressively pursue acquisition of the mineral property and obtain a fair appraisal. If the owner agrees to sell, then he will receive value on his investment without causing harm to the public resources.

The Forest Service has legal responsibilities under federal law to insure that public resources are protected. For this reason, the draft EIS should be reissued to include a more complete range of alternatives. If a buyout or trade cannot be worked out, the EIS should at the very least require total reclamation, bonding and compliance with all laws and regulations that protect surface values. 12-1

Please do not forsake the public's interest in this consideration. I have spent a good bit of time in the Mt. Nebo Wilderness Area, and would be very saddened to see an open pit mine within its confines.

Respectfully,

Nancy Orr

12-1
See section #1 response and response #8-1.

FILE COPY (13)

May 29, 1992

Dear Mr. Karp,

I realize that under a special exception, the Wilderness Act of 1964 allows for development of valid mineral rights existing at the time of wilderness designation on congressionally designated wilderness lands. Even so, I feel the Forest Service should consider all reasonable alternatives concerning the proposal for an open pit gypsum mine located inside Utah's Mount Nebo Wilderness Area.

Specifically, I am urging the Forest Service to reissue the draft Environmental Impact Statement for this mining proposal and include a more complete range of alternatives -- namely, a buyout or trade of the subsurface mineral rights pertaining to the 60 acre parcel of land in question. If the Forest Service were to aggressively pursue acquisition of the mineral property and obtain a fair appraisal, the owner may be willing to sell for a fair price, resulting in a situation where both the public and the developer can "win". 13-1

Furthermore, I feel the Forest Service should require full reclamation, bonding to insure the reclamation measures, and should demonstrate an ability to monitor all actions and implement all regulations pertaining to the proposal. As the surface manager, the Forest Service has a legal obligation to ensure that the public resources are not harmed. (51 acres of "unreclaimable" land, as was indicated in the original draft EIS, is particularly alarming!)

In short, please take into account the above issues, and do what is best for the naturalness of the Mount Nebo Wilderness. Thank you for your attention.

Sincerely,

James W. Thompson
3801 South Viking Road
Salt Lake City, Utah
84109

UINTA NF
JUN 02 '92

13-1
See section #1 response and response #8-1.

FILE COPY UINTA NF (14)

JN 03 '92

May 31, 1992

Peter Karp, Supervisor
Uinta National Forest
P.O. Box 1428
Provo, UT 84603

Subject: Intrusions into Mt Nebo Wilderness

Dear Supervisor Karp:

I have learned that you are doing little to preserve the integrity of the Mt. Nebo Wilderness. I am speaking specifically about the proposal to open a gypsum mine within the wilderness. This is a despicable proposal. I urge you to take action in the numerous ways you have at your disposal to prohibit this operation. What little bits of wilderness remain should be safeguarded with all resources and maneuvers possible.

You should require that total reclamation be planned, that a suitable bond be posted in cash for potential damage to wildlife, water, etc., and for complete reclamation and mitigation, and that the proposal be limited to primitive mining using pack stock only (no vehicle access or use within the wilderness). Travel corridors outside, but adjacent to, the wilderness should be prohibited to foot or pack stock to preserve the integrity of the wilderness. 14-1

Please reissue the Draft EIS and include more reasonable and proper options such as primitive mining access ONLY. The EIS should include a buyout or trade option, should more carefully examine and implement legal responsibility to protect the wilderness and other public lands, demand total reclamation and complete bonding as well as compliance with all laws and regulations that protect surface values and resources (including wilderness character, wildlife, water quality, visual aesthetics, etc.).

I want you to initiate legal proceedings against those who violated the wilderness boundary with their equipment. This violation should be viewed as rape (which it is), and not as justification for further rape. I ask you, if someone were to rape one of your loved ones, go unpunished, and then ask to rape again -- would you suggest that the prior rape justifies all future rape??? Indeed, the rapists have been rewarded already by the lack of FS action, and it is time for action on your part. 14-2

You have legal and ethical responsibility to the land surface. Please protect the wilderness character of the land and exhibit proper stewardship. It is all too frequent that the FS

14-1
See section #1 response and response #8-1.

14-2
The proponent did authorize the operation of a cat within the area encompassed by his mineral rights. A cat and a vehicle were driven to said lands on the existing road and operated within the wilderness. All activities were halted and a notice of violation was issued for operating a motorized vehicle within the wilderness. In addition, the proponent will be held liable for reclamation of the disturbance whether there will be a mining operation or not.

finds exemption to stewardship by logging slopes, logging at high elevation, deficit sale harvest, promoting overgrazing, building roads for special interest groups at huge taxpayer expense while stating that there is no money for trail maintenance, etc. It is time for exercising some of this administrative oversight to protect the land. Please do so at once. 14-2

Cordially,

Robert N. Jones

Robert N. Jones
1531 East Bryan Avenue
Salt Lake, Utah 84105-2801

FILE COPY JN 03 '92

(15)

5/31/92

Dear Supervisor Karp:

This concerns the proposed open-pit mine in the Mt Nebo wilderness.

We request you reissue the draft EIS and include a more complete range of alternatives to meet the USFS responsibility to protect public lands and resources. The alternatives should include a buy out or trade for other less sensitive land. 15-1

The analysis should more carefully consider the legal responsibilities of parties involved, the impact on the natural and cultural resources. In any event, the terms should include total reclamation, bonding, and compliance with all laws and regulations that protect surface values.

It is inconceivable that you cannot find good cause to stop this mine operation.

Sincerely,

Arth & Prudence Arnold

15-1
See section #1 response and response #8-1.

(16)

FILE COPY

UINTA NF

JUN 03 '92

Wasatch Mountain Club
John Veranth, Conservation Director
4468 Ashford Drive
Salt Lake City, Utah 84124

May 31, 1992

Mr. Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

Re: Mount Nebo Wilderness Gypsum Mining DEIS

I am writing to request that the Draft EIS be reissued with a more complete range of alternatives being considered.

My professional background is a professional engineer and includes experience managing a number of "earth disturbing" projects including roads and a small lime sand mine. The surface impacts, both during active work and after reclamation, can be increased by using the most expedient methods or can be mitigated by careful design and execution.

16-1

The maximum mitigation of impacts achievable using current technology is the appropriate standard for a mine in a Wilderness area where the proponent has mineral rights and the Forest Service has surface rights. I urge the Forest Service to carefully research their authority to manage surface activities and to examine project alternatives that minimize the short term and long term impacts. An alternative which specifically allows for complete reclamation of the disturbed area at the conclusion of mining is preferable to accepting that a significant area within the Wilderness will show the permanent evidence of mining. The fact that these mitigation measures add to the cost is not a valid reason to exclude them from EIS analysis.

Sincerely,

John Veranth

16 - 1
See section #1 response and response #8-1.

UINTA NF FILE COPY

JUN 08 '92

(17)

June 4, 1992

Mr. Peter Karp
Uinta National Forest Supervisor
P O Box 1428
Provo, Utah

Dear Mr. Karp,

I must say that I was outraged to learn that the forest service has actually recommended an open pit gypsum mine in the Mt. Nebo Wilderness area. By choosing this as the preferred alternative in the draft Environmental Impact Statement, the forest service has demonstrated gross mismanagement of the public trust as it applies to federally mandated wilderness areas. 17-1

A wilderness area is defined in the Wilderness Act as an area "untrammeled by man." There is no way that an open pit mine with motor vehicle access can conform with this directive. In allowing such a thing to happen, the forest service would abrogate completely its surface rights and responsibilities to the Mt. Nebo Wilderness area in favor of the subsurface rights. This entirely ignores the Wilderness Act and the wishes of the majority of americans who fought for its passage. 17-2

At the very least, the forest service should push for some sort of compromise between the two conflicting interests, one that would not destroy wilderness values. However, it is not up to the forest service to forsake its own legal responsibilities to facilitate cheaper extraction for a single private interest. Better yet, the forest service should try to buy out these private mineral rights, and remove this threat entirely. There are other better alternatives that were not explored in the EIS. 17-3

I have a strong interest in seeing that Mt. Nebo remain the wilderness area it was intended to be. I will be watching with great concern to see how you proceed.

Sincerely,

Jennifer Bickford

Jennifer Bickford
305 Prospect Ave
Hood River, Oregon 97031

17 - 1
The agency has not recommended any alternative. The draft EIS does not contain a preferred alternative.

17 - 2
The Forest Service is striving to address the intent of the Wilderness Act as well as the existence of valid existing rights. A description of all factors involved is found in Chapter I.

17 - 3
This concern has been incorporated in Chapter II of the supplement.

FILE COPY UINTA NF (18)

JUN 08 '92

To: Mr. Peter Karp

Uinta National Forest Supervisor

Ref: Open-Pit Mine Proposed for Mt Nebo Wilderness (draft EIS)

Dear Mr. Karp,

I am writing on behalf of many friends and family members.

I was shocked to hear the results of the draft EIS for this wilderness area.

18-1 Since the forest service purchased the land (surface) in 1965 they now have the responsibility to manage it, and when required, protect it (the surface). If the draft EIS has determined that 51 acres will be rendered unreclaimable because of open-pit gypsum mining, the forest service must look at all alternatives. They have not. Please reissue the draft EIS to include a more complete range of alternatives that protect a sensitive wilderness area. Included, must be a buy-out option as one of the alternatives.

18-2 Although the subsurface mineral rights are privately owned, and they do have the right to gain access to those minerals, they do not have the right to destroy someone

18 - 1
See section #1 response and response #8-1.

18 - 2
As owner of a valid existing right, the proponent has a right to extract those minerals. If the proponent exercises his right to mine the gypsum within said lands covered by these rights, the Forest Service has the responsibility to mitigate the impacts to the extent possible, as described by State law. Utah State laws allow for reasonable requirements for surface protection. This concern is more fully addressed in Chapter I.

18 - 3
We agree, and feel that the EIS does consider the impacts to the resources mentioned.

elses land in the process. The real problem for the private owner is that the only (current) economically feasible mining technique will destroy designated wilderness areas. Does the owner have a right to gain access to the area? Yes.
18-2 Does the owner have a right to make a profit at the expense of someone elses land? No.

The draft EIS must consider wildlife, sensetive species & cultural resources in
18-3 regards to the destruction & disection of habitat by mining & access roads & heavy equipment.

Thank you for your time
Sincerely
JOHN CASE

1102 NORTH 1250 WEST
LAYTON, UTAH 84041-2032
544-1653

(19)

3617 Brighton Point Dr.
Salt Lake City, UT 84121
June 4, 1992

FILE COPY
UINTA NF
JUN 08 '92

Mr. Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, UT 84603

Dear Mr. Karp:

I am opposed to the Gypsum Open-Pit mine proposed for 51 of the 60 acres of the Mt. Nebo Wilderness. This proposal would irrevocably ruin the surface of these public Wilderness areas —

As the surface manager, you, the Forest Service have legal responsibilities under federal law to protect this surface in the public interest.

19-1 Please send me the EIS.

If the EIS does not consider a buyout, or trade alternative, analyze the impacts on wildlife, sensitive species, etc. I request that such an EIS be done.

You, on behalf of the public -- citizens + taxpayers such as myself — need to insist upon total reclamation (which would likely make the project uneconomical), bonding + compliance with all laws + regulations that protect surface values.

19-2 Gypsum is a common mineral, + we should + must not ruin Wilderness in order to mine it — Janet T. Mellekas

19 - 1
See section #1 and response #8-1.

19 - 2
Considering gypsum as a common variety mineral is a moot point. The proponent's rights are based on the acquisition of a Federal patent for the gypsum within these claims. Issuance of a patent was based on a determination that the gypsum ore within the bounds of these claims was an uncommon variety mineral. The Department of Interior has attempted to define "common varieties" by regulation (43 CFR 3711.1(b)). In this regulation they state: "Limestone suitable for use in the production of cement, metallurgical or chemical grade limestone, gypsum, and the like are not "common varieties". This subsection does not relieve a claimant from any requirements of the mining laws.

UINTA NF FILE COPY

JUN 08 '92

20

1561 25th Street
Ogden, Utah 84401
June 5, 1992

Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

I am writing regarding the proposed development of an open pit gypsum mine inside the Mt. Nebo wilderness area. Few things in recent years have outraged me more than this proposal. Don't you dare let that mine be developed!

I am informed that the proposed developer is the mayor of Nephi and that he has already bulldozed an illegal road to the proposed site. I hope this information isn't correct. I would be disgusted indeed to believe an elected official of an important Utah community would have such contempt for wilderness values and for the law. 20-1

If an unauthorized road has already been bulldozed, why haven't you brought charges on this matter? If the law has been broken, we want that man punished even if he is the mayor of Nephi. This is not something the public is going to turn its back on, so do your duty and stand up to that fellow.

There are many inadequacies in the draft EIS done on this proposal. Please reissue that EIS and make it more comprehensive in its alternatives. If possible, buy out that mining claim. Make that would-be miner come up front with total reclamation, bonding, and compliance with all regulations. 20-2

Sincerely,

Levi S. Peterson

Levi S. Peterson

20-1
See response to letter #14 (14-2).

20-2
See section #1 response and response #8-1.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

FILE COPY

(21)

UINTA NF

JUN 03 '92

JUN - 4 '92

Ref: 8WM-EA

Peter W. Karp
Uinta National Forest
88 West 100 North
PO Box 1428
Provo, Utah 84603

Re: Draft - Environmental Impact Statement (DEIS) for Gardiner Canyon Gypsum Mine

Dear Mr. Karp,

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region VIII office of the Environmental Protection Agency (EPA) has reviewed the DEIS for the above referenced project and offers the following concerns and comments for your consideration as you complete the final Environmental Impact Statement (FEIS).

Our primary environmental concern with the proposed project is its probable impact to surface water quality. Placement or disposal of sediment in waters of the United States requires a 404 permit under the Clean Water Act. Any anticipated discharges of water from point sources (eg. gullies, ditches) require an NPDES (National Pollution Discharge Elimination System) discharge permit from the State of Utah. The NPDES stormwater permit program also requires a permit for any runoff leaving the site through a discernable point source. The DEIS does not clearly state whether discharge is anticipated from the proposed pit. 21-1

Your DEIS discloses that "The steep slopes on the land types are prone to mass failure. The saturated conditions during 1983 and 1984 caused a landslide to occur on this same slope, partially within the confines of the Little Doctor Claim (Page IV-4)." This experience within the area being proposed for mining, presumably on undisturbed lands, has lead your specialist to contemplate ".... a 50% chance exists that mass failure will occur at some time on some portion of the disturbed area (Page IV-5)." The document does not clearly describe how this predicted adverse impact would affect waters of the United States in Gardner Creek. There is a reference to a potential blockage to "the Gardner Creek channel" on page IV-5. This was interpreted to be a ditchline. Our review did not find any disclosure of impacts to perennial streams. The final EIS must disclose the probability and magnitude of impacts anticipated 21-2

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21 - 1
Any anticipated surface runoff from the project would be non-point in nature. The DEIS has been revised to indicate this. Required permits will be obtained by the proponent and as the State of Utah will permit the operation, they should be aware of any such requirements.

21 - 2
Please review item 3 on page III-2 of the EIS. The stream involved is a small natural stream channel which is diverted into a pipeline near the lower northwest corner of the mineral estate boundary. The 1983 landslide blocked this stream on National Forest System lands between the upper and lower legs of the patented claims. The stream was then forced around the north edge of the landslide resulting in channel erosion, downcutting, and downstream sediment deposition. Additional landslides on this slope could reach this channel causing additional channel deterioration and associated water quality impacts. The causes of the 1983 landslide are described in a published report titled "The Utah Landslides, Debris Flows, and Floods of May and June 1983" by the Committee on Natural Disasters, of the Commission on Engineering and Technical Systems, of the National Research Council. Additional information can also be found in an unpublished report titled "Uinta National Forest Flood Damage Report, 1983" by Paul H. Skabelund. Some revision of the EIS text has been made in line with your comments.

from the proposal to waters of the United States. This requires a geo-hydrologic description of the cause of the 1983-84 event and the use of that information to forecast the degree the proposed activity would aggrevate historic slump potential and cause another event. The geo-hydrologic report would also lead to the development of a reasonable range of mining operation and mitigation alternatives to be considered in the final EIS. 21-2

Any approved mining Plan of Operation must contain: 1) the mitigation requirements included in the selected alternative that are designed to minimize the potential for mass failure; 2) a mitigation contingency plan for rehabilitation from potential damage; 3) adequate surety to cover the cost of reclaiming such an event in a timely manner; and a plan to mitigate disruption of off-site water use. 21-3

Similarly, the nature of open pit mining generally involves vertical cuts - in this case, benches of about 15 - 30 feet high are planned "....determined by the capability of the available equipment...." (Page - II-7). The EPA considers a process that designs the height of an open pit mine vertical cut based upon "equipment capability" rather than the ability of the bank to stand, a faulty concept. The stability of the open pit walls must certainly be considered paramount to the capability of "available equipment", especially in this location of known slump potential. The final EIS must disclose the effects of the proposal including how the proposed mining methods will: 1) minimize adverse impacts by not aggrevating the slump potential, thereby exacerbating impacts to waters of the United States, 2) result in timely reclamation of the site, 3) prevent damage to properties not included within the subsurface patent rights of the proponent and 4) avoid "..... unreasonable, careless, or negligent use of the surface....(Page I-2)" by the proponent. An engineering structural stability analysis would be of benefit to this determination. Vertical cuts could also constitute a physical threat to wildlife and public health. Although the document proposes to place signs about the danger (Page II-6), the final EIS must disclose why this is adequate. 21-4

The EPA considers wilderness areas key to the protection of biological diversity. They have long been considered the stronghold of maintaining natural diversity. Using natural environmental forces and a "hands off" approach to management in wilderness is the most proper method to preserve species and genetic diversity by avoiding the fragmentation of habitat as well as direct impacts. Biological diversity is increasingly threatened with development. Proposals such as this erode the effectiveness of wilderness in the effort to preserve diversity. The magnitude of probable impacts from this proposed project further exacerbate its encroachment on this valued element of our environment. While the document discusses social impacts on the character of wilderness, it does not disclose any effects on diversity. The effects of the project on diversity must be discussed in the final EIS. 21-5

21 - 3

We agree, and the State will require the items listed as part of their approval of the mining plan. This analysis looks at a request for access and the associated impacts of alternatives for access. It also considers the connected action of the mining proposal. The agency realizes that until such time as a mining plan is approved and a permit is issued by the State, the specifics of that plan are not known. The proponent can also at any time during the course of his operation, change his plan of operation. This could require an amendment to his plan and continued approval from the State. The point being that legal ownership of the mineral right complicates the analysis of a specific, continued, mining proposal. In an effort to display the impacts from the connected action of mining, a worst case scenario as well as an alternate scenario of anticipated impacts is displayed. See response to comment #3-3.

21-4

We agree. The DEIS has been changed to reflect this comment. Please see information included in Chapter 1.

21 - 5

Questions of how resource management activities on National Forest System lands affect biological diversity are beyond the scope of this document. Subjects such as global warming, fragmentation of habitat, and biological diversity are important and must be evaluated, but on a much larger scale. The agency is considering these concerns, but on a national scale.

Other items we have noted include: 1) the document only states that there will be 50 acres "potentially unreclaimable" (Page II-8, IV-7) rather than fully disclosing the effects of this impact. 2) Pages IV-3 and IV-5 appear to be in conflict concerning whether or not toxic runoff will occur. The final EIS must adequately address these issues. 21-6

Based on the procedures EPA uses to evaluate the environmental impacts of the proposed action and alternatives and the adequacy of the information in the DEIS, the Draft EIS for the Gardiner Canyon Gypsum Mine Proposal will be listed in the Federal Register in category EC-2. This means that the review has identified environmental impacts that should be avoided in order to fully protect the environment and that the DEIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment.

We appreciate your interest in our comments at this stage and for this type of project. Please contact Larry Lindner (303/293-1695) of my staff if you have any questions about these comments.

Sincerely,

Robert R. DeSpain

Robert R. DeSpain, Chief
Environmental Assessment Branch
Water Management Division

21-6
The DEIS has been changed to reflect these comments. See response #49-11.

LIONEL EDWARDS WEEKS, M.D.
Orthopaedic Surgery

May 30, 1992

FILE COPY
UINTA NF (22)
JUN 08 '92

Mr. Peter Karp
Uinta National Forest Supervisor
P. O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

I am writing to oppose open pit mining in the Mt. Nebo Wilderness area. These areas should remain in their natural state for all to enjoy and this is impossible when mining of any type is being done, especially open pit mining. This is totally unacceptable and I hope you will act responsibly and stop this destruction of our natural lands. 22-1

Sincerely yours,

L. E. Weeks, M. D.
LEW/ks

#24 South 1100 East, Suite 301 Salt Lake City, Utah 84102 (801) 363-6487

22 - 1
See section #1 response and response #8-1.

FILE COPY

UINTA NF (23)

JUN 08 '92

June 4, 1992

Supervisor Peter Karp
P.O.Box 1428
Provo, UT. 84603

Dear Mr. Karp,

I just received the UWA bulletin informing me about the down pit mine in the Mt. Naba Wilderness. If all of their information is true, I am a bit baffled that the Forest Service seems unable to assert its "surface" rights in this project (if the "trespassing" and bulldozer works cannot be followed through, what rights ARE "surface" rights?).

At any rate, I realize that there are always two sides to a story and would appreciate hearing the Forest Service's version of the situation. (Will the area be reclaimed once the mining is done? And more importantly, is the buying of just surface rights (and not mineral rights) a common practice, one which might lead to this situation again? 23-1

Thanks for your time and patience. And I look forward to hearing from you...

Cordially,

Michael A. Martin
P.O.Box 21686
Salt Lake City, UT.
84121

MMtor

23 - 1

A copy of the supplement is being sent to you. This document displays all sides of the story. The purchasing surface rights only is not a common practice in the Intermountain Region.

(24)

FILE COPY

UINTA NF

JUN 08 '92

Robert D. Brockhaus
3546 NE 130th St.
Seattle, WA. 98125

Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, UT 84603

Dear Peter Karp:

As a former resident of Utah, I try to keep tabs on what's going on environmentally in the state. I would like my own copy of the Mt Nebo gypsum mine draft EIS and also urge you to reissue the draft EIS after including more alternatives and important issues.

I am currently working on an EIS in the Seattle area. In this EIS we have had to examine several additional alternatives to satisfy the publics demand for an open discursion of the issues. I find it difficult to believe that in a mining EIS only three alternatives were analyzed. 24-1

I also find it hard to believe that 51 acres of the mine would be unreclaimable, especially in a wilderness area! If the mine is allowed, it should be subject to the strictest standards and be in compliance with all laws and regulations that protect surface issues.

Thank you.

Sincerely,

Robert D Brockhaus

Robert D. Brockhaus

24 - 1

See section #1 response and response #8-1. This document, though labelled as a "Mining EIS", actually evaluates a request for a special use permit to access the area which contains outstanding mineral rights. The alternatives explored are in response to the need to provide access. The document includes a discussion of the connected action of mining, since the effects must be analyzed in a NEPA document.

FILE COPY UINTA NF (25)

JN 08 '92

31 May, 1992

Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, UT 84603

Dear Mr. Karp:

I am writing to express my opposition to the proposed open-pit gypsum mine in the Mt. Nebo Wilderness.

Although the legalities of the situation seem to favor the developers of the mine, and hopes for defeating the project appear dim, the draft EIS for this project seems to ignore several important and possible alternatives, and the Forest Service seems to be willing to let private mining interests walk all over it, as usual. 25-1

Since the Forest Service is the surface manager for this area, it is the responsibility of the Forest service to ensure that Public Resources are not harmed. The Forest Service should insist on 100% reclamation of the mine and all access roads, enforce strict controls on noise, dust and light emissions, and issue citations for any unauthorized work done in advance of actual legal mining operations.

Most citizens believe that the Forest Service is the guardian of the public lands and that it is watching out for their interests by preserving the land for future generations. Please don't let them down.

Thanks for listening,

Bill Thomas
421 B 6th Ave
Salt Lake City, UT 84103

25 - 1
See section #1 response and response #8-1.

FILE COPY

(26)

UINTA NF

JUN 05 '92

June 5. 1992

Mr. Peter Karp
Uintas National Forest Supervisor
P.O. Box 1428
Provo UT. 84603

Dear Mr. Karp:

I am writing to ask you to consider purchasing the outstanding mineral rights in the Mount Nebo Wilderness area. An open pit gypsum mine would certainly leave scarring which is not reclamable. This would seem to subtract significantly from the concept of a wilderness area. The public would be deprived of a scenic recreational area. this is close to a populated area. and is widely utilized. 26-1

As manager of the wilderness. I do not understand why the forest service seems to take the position it cannot regulate this mining project if it takes place. Certainly. the impact on forest service lands will not be minimal.

Sincerely
Jan Ellen Burton, Ph.D.
Jan Ellen Burton. Ph.D.

26 - 1
See section #1 response and response #8-1.

Robert Steele 4/14/92

(27)

Comments on the DEIS for Gardner Canyon Gypsum Mine

Section 22 township 12-S Range 1 East Salt Lake Mer.

ALTERNATIVES CONSIDERED IN DETAIL

1- Alternative A: No action

Alternative A has been implemented.

2- Alternative B: Proposed plan of operation

Alternative B is the only plan that is economically feasible and should be approved by the Forest Service immediately as to stop the Economic hardship on the owners. 27-1

3- Alternative C: None Wilderness Access

Alternative C was not studied in full detail by the forest Service. Roads would be highly visible from as far as 20 miles on state highway 28 and Interstate 15. Road cuts would be in solid rock in some places and would have to be wider than the road down gardner canyon for safety. the road would also cross Red Canyon, a water source for Nephi City. It would also destroy many acres of winter range for deer and elk. The road to be made safe for large trucks would be much wider and longer than the two miles estimated and it would cost close to $100,000 to construct. 27-2

Wildlife and Fisheries: Page III-4

I. Wildlife

The project area is not a critical key winter range of big game wildlife.

A. The elevation is 6.000 to 7.000 feet. Well above the key winter grazing range for the large game wildlife. 27-3

B. The property is on the north slope of the hill and is covered with large amounts of snow in the winter time.

C. With the W.O.R. present policy their will never be a need for a key winter range for big game.

27-1
By law, the Forest Service needs to follow the procedural provisions of the National Environmental Policy Act. Requirements under this act include a no action alternative. Until the analysis is completed, a decision on which action to approve cannot be made. Alternative A has not been selected.

27-2
Your comments were included in the analysis for the supplement. The agency disagrees with your comment on the road construction costs for Alternative C. At this time, an exact route has not been surveyed for this alternative; however, our engineering department has studied the area where an alternate route would be constructed. Their estimates reflect our original distances and costs for construction.

27-3
The project area is considered critical winter range by wildlife biologists from both the Forest Service and the State of Utah, Division of Wildlife Resources.

II. Sage Grouse

There are no sage grouse currently on Mount Nebo nor have there ever been in my lifetime. **27-4**

III. Mammals

Big horn sheep- There are no known big horn sheep in Gardner Canyon. **27-5**

Vegetation Resources: Page III-5

There are no Pinyon Trees and only six Juniper Trees on the established claims. The main vegetation on the claims are Mountain Mahogany, Scrub Oak and Black Leaf Mahogany. **27-6**

Social Economics: Page III-6

The economy of Juab County is based on service, agricultural industries and mining.
(The mining industry is the highest paying job in the county.) **27-7**

Wilderness: Page III-7

The wilderness act of 1964 as designated by congress:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man, himself, is a visitor who does not remain. An area of wilderness is further defined to mean an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) Generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has a least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and

27 - 4
We agree with your comment. The text has been changed to reflect this (see page III-4).

27 - 5
While bighorn sheep are few in number and probably do not visit Gardner Canyon on a regular basis, the original plant was made in Willow Creek, just 3.5 miles north of the project area. It is possible that the sheep may occasionally winter in Gardner Canyon.

27 - 6
We agree that oakbrush and mountain mahogany are the dominant vegetation on the claims, but oakbrush and pinyon/juniper plant communities make up the predominant vegetative types in the vicinity of the proposed project. The species you listed are part of those communities.

27 - 7
We have revised this section to include your comment. Based on economic information from Juab County, the mining industry is not the highest paying in the county.

(4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value. 27-8

The lands below the 7,000 foot level on Nebo do not meet this act.

Water Quality: Page II-5

The point of Division for Gardner Canyon is approximately 400 yds. North East of mine site but was washed out in 1983, but it is still the point of division. 27-9

Wildlife Habitat Page II-6

The mining activity can be engaged all year long and not effect the big game. 27-10

Roads:

Dust suppressant will be applied when necessary. The type of dust suppressant used will not be mandated by the Forest Service. 27-11

Reclamation: Page II-6

It is not necessary to have seasonal shutdowns for reclamation. 27-12

Economics: Page IV-11

There has not been any study on the economic hardship that has been initiated on the owners and the lessor of the property. Lost contracts, more cost for royalty, taxes and legal fees. 27-13

Local Economy: Page IV-15

The gypsum reserves will assure jobs for many more years to Juab County. 27-14

27 - 8
The fact remains that due to the Utah Wilderness Bill of 1984, this area was designated as wilderness. As a result, the Forest Service must manage this land as wilderness.

27 - 9
While the legal point-of-diversion is still upstream from the claims boundary, the actual point-of-diversion is now downstream a considerable distance. The occurrence of the landslide between the two points now makes it more expensive to reestablish the diversion at its original location.

27 - 10
See comment #27-3. Since this area is considered critical big game winter range, the agency would request a seasonal shutdown to mitigate impacts to wildlife.

27 - 11
While the DEIS does not mandate what type of dust suppressant will be used on the access routes involved, the Forest Service will recommend to the State Division of Oil, Gas, and Mining, what it believes will best meet control needs off of National Forest System lands and will make the final determination on areas covered by a special use permit.

27 - 12
This mitigation measure does not propose seasonal shutdowns for reclamation purposes, but rather proposes that prior to seasonal shutdowns, temporary reclamation measures such as drainage structures will be installed as needed.

27 - 13
The Forest Service does not intend to make any such study as it is not a required part of the NEPA process. NEPA does require that environmental analysis be completed before projects, which have the potential to affect Federal lands, can proceed.

27 - 14
Without knowing the exact size, quality, and configuration of the ore body and without knowing the future market value of gypsum, it is impossible to predict the number of jobs and years of employment this ore body will provide to Juab County.

Alternatives Including the Proposed Action

Introduction: Chapter II Page II-1

The Forest Service Deed states and they knew when they purchased the property that Gypsum covered most of the area. So it is not unreasonable or excessive to mine all the acreage. 27-15

Summary and Conclusion:

Page S-1 Proposed need for action:

After reviewing the DEIS, their is and was no need for action by the Forest Service. 27-16

Page S-1 Public Issues, Management Concerns, and Opportunities:

The concern for Public Law 98-428 overrode the priority rights of the proponents rights under the 1872 mining laws.

Page S-2 Alternatives, Including the Proposed Action:

1- Alternatives eliminated from detailed study are federal acquisition of Mineral Estate because of the Forest Service, not Mr. Steele. Mr. Steele offered to sale or trade the property for the fair market value, based on an independent appraisal. 27-17

Owners of said property:

Robert L. Steele

Christy K. Steele

27-15
The terms unreasonable, excessive, negligent, and careless, are taken from State law and State reclamation requirements. The terms also apply to criteria that the agency would use with regard to responsibilities and requirements in providing surface protection to Federally owned lands. A determination has not been made as to what activities fall into this category. This determination would be made as part of the review process of the operation plan prior to issuance of a State permit.

27-16
The need for action, as required by NEPA, is a decision on what route, if any, the agency would authorize under a special use permit. A special use permit would be required for the construction and maintenance of an access route to said lands covered by the outstanding mineral rights. A decision to construct and maintain an access route across Federal land is considered a major Federal action and is therefore required to be covered by a "NEPA" document.

27-17
Your comment was included in the supplement. See pages II-2 and II-3.

28

MT. NEBO—ELEVATION 11,887 FT.

ROBERT L. STEELE
MAYOR

KELLY T. ANDERSEN
COUNCILMAN

CHAD L. BROUGH
COUNCILMAN

MILTON T. HARMON
COUNCILMAN

JENS C. MCKELLSON
COUNCILMAN

RICHARD T. PAXMAN
COUNCILMAN

Nephi City Corporation

21 EAST FIRST NORTH
NEPHI, UTAH 84648
PHONE (801) 623-0822

J. RANDY McKNIGHT
CITY ADMINISTRATOR

FAYE M. GREENHALGH
CITY RECORDER

LINDA LOU WILSON
CITY TREASURER

DONALD J. EYRE, JR.
CITY ATTORNEY

PEGGY A. MEMMOTT
JUSTICE COURT JUDGE

CHAD M. BOWLES
CHIEF OF POLICE

June 11, 1992

Comments On The DEIS For Gardner Canyon Gypsum Mine

Alternatives Considered in Detail

Alternative C: Non-Wilderness Access

Alternative C would be highly visible from Nephi City for the duration of the mining project and possibly for many years thereafter. 28-1

It could also interfere with a Nephi City water source (Ord Springs). Alternative C would also destroy winter range for deer and elk. 28-2

Therefore, Alternative B would be the best and the most feasible plan. It would also help the economic growth of Juab County. 28-3

We therefore recommend the Alternative B plan.

Nephi City

Milton T. Harmon
Mayor Pro-tem

28-1
We agree with your comment. The DEIS indicates this on page IV-2, paragraph 2.

28-2
The access route described under Alternative C would not affect the described location of Rowley (Ord) Springs. It is possible that provision would need to be made to cross or follow portions of the right-of-way for transmission lines associated with this use. The FEIS has been revised to discuss this situation.

28-3
We agree that Alternative C would impact winter range for deer and elk and the extent of that impact is displayed on page IV-8, paragraph 3.

FILE COPY

5-23-92

(29)

Dear Mr. Karp:

Please do not allow the gypsum mine in the Mt. Nebo Wilderness. 29-1
We vacation in Utah.

Thank you.

Tobi Van Dyck
718 Randolph St. #6
Angola, IN 46703

UINTA NF
JUN 12 '92

UINTA NATIONAL FOREST
MAY 27 1992

USA 19

Peter Karp,
Forest Supervisor
Uinta National Forest
P.O. Box 1428
Provo, UT 84603

29-1
See section #1 response and response #8-1.

FILE COPY

UINTA NF

JUN 12 '92

(30)

June 8, 1992

Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, UT 84603

Mr. Karp:

I am writing in regards to the possibility of a gypsum mine in the Mt. Nebo wilderness area. I understand that the mineral rights to a portion of the wilderness are owned by a private interest and that under the provisions of the Wilderness Act the owner has the right to develop the mine. What bothers me is that this is one of the prettiest, if not *the* prettiest mountainous area in the state. It seems such a tragedy to allow 50 or 60 acres of it to be rendered forever ugly by the abuse of an open-pit mine.

I realize that you, as the supervisor of the forest in this area, do not have direct control over the mineral use of the land. However, I would ask you to help save this part of the forest by re-issuing the Environmental Impact Statement for the mine. In the re-issued EIS would you include the option of a government buyout of the mineral interests for this acreage. I see this as the only hope we have of saving this part of the forest from permanent destruction. 30-1

If allowed to proceed, this gypsum mine will benefit a very few, and ruin part of the wilderness for everyone else. The economic benefits of this mine to the state and the nation will be miniscule in comparison to the scar that will be left on the land for decades. Please take the time to re-issue the EIS and help promote the option of buying out the mineral interests for this area.

Sincerely,

Todd Murdock

Todd Murdock
744 East 400 South
Orem, UT 84058

30-1
See section #1 response and response #8-1.

FILE COPY

UINTA NF (31)

JUN 12 '92

West 2802 Depot Springs Road
Spangle, VA 99031
7 June 1992

Mr. Peter Karp
Forest Supervisor
Uinta National Forest
P.O. Box 1428
Provo, UT 84603

Dear Sir:

I am writing to express my extreme outrage at the proposal by Mr. Robert Steele (no relation) to mine gypsum inside the Mt. Nebo Wilderness. Because Mr. Steele's claims predate the "Wilderness" designation, he probably does have a right to mine, but he does not have the right to create a 68-acre open pit that would irreparably degrade the value of the public's wilderness resource. The fact that Mr. Steele is demanding an exorbitant $1 million for the government to purchase his claims suggests to me that he is playing a game of environmental blackmail and very well may not even intend to mine such a common mineral as gypsum. 31-1

In my opinion, the Forest Service should protect the public's interest by offering Mr. Steele fair market value for his claims, and if he declines to sell for fair market value, the agency should throw every conceivable roadblock in the way of mining these claims including requiring underground mining, removal of gypsum by air, and posting a bond equal to the value of the whole Mt. Nebo Wilderness, which would be destroyed by the mine.

I urge the Forest Service to stand up to this attempt at blackmail and to protect the Wilderness for the public.

Sincerely,

William K. Steele

William K. Steele

31-1
See section #1 response and response #8-1.

UINTA NF FILE COPY

JN 12 '92 32

10 JUNE 1992

Atta: Mr. Peter Karp

Dear Sir:

It has just come to my attention of the danger Mt. Nebo Wilderness is in!

I could hardly believe the current EIS the Forest Service has put out, to practically allow an open-pit strip mine for gypsum!

The Forest Service erred in NOT making sure any mining claims under the antiquated and obscene 1872 Mining Law could have it's ugly sucker-face rear up when it acquired the property.

Now, to just say what is done is done, and almost nothing can be done about it, is just about what this current EIS says!

Please, please, re-issue another EIS! Buy or trade-out, if necessary, the Rapist trying to claim his RIGHT to do as he wants, for money alone. Make it as tough as possible on the Rapist, if he tries to exercise his "mining claim." 32-1

As a life-long resident of Utah, what about my RIGHT, my grand-children RIGHTS, the RIGHTS of all the species living within this eco-system? Wilderness areas are price-less, now, and even more so for the future. This is the "greater good."

A new EIS is a must, to take ALL of this into consideration. The future is here now, on these decisions made today.

Thank you for your time-

M. Barbara S. Peterson
4729 So. 1900 W.
Roy, UT 84067

32-1
See section #1 response and response #8-1.

FILE COPY UINTA NF (33)

JUN 12 '92

Mr. Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, UT 84603

June 10, 1992

Dear Mr. Karp:

I would like to express my opposition to the proposed open-pit mining project in the Mt. Nebo Wilderness area. I believe that such a project is intended to benefit only a small number of profit seekers and comes at the expense of the rest of the public as well as the integrity of the Wilderness area itself.

33-1 I would also like to encourage you to reissue the draft EIS for the project and include a wider range of alternatives. These alternatives should include the option for buy-out or trade. In addition, the Forest Service should insist on total reclamation, bonding, and compliance with all laws and regulations that protect surface values.

I thank you very much for your interest. I'm sure your decisions are seldom easy ones.

Sincerely,

Rick Sherman

Rick Sherman
P.O. Box 1566
Salt Lake City, UT 84110

33-1
See section #1 response and response #8-1.

FILE COPY UINTA NF (34)

JUN 12 '92

4 June 1992

Mr Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428, Provo UT

Dear Mr Karp,

I am writing concerning the draft EIS on the proposed open-pit gypsum mine in the Mt. Nebo Wilderness. I feel especially interested in this as I was born in Salt Lake City and have lived most of my life in Utah. I would like to thank you in advance for considering my comments.

I find it incredible, and unacceptable as a tax-paying member of the public, that your district has apparently abandoned responsibility to wisely manage the area in the public interests. I do not see how the public interest is being served by allowing a damaging open-pit mining operation of a cheap and plentiful mineral to occur within a wilderness area. Although you lack jurisdiction over subsurface rights in this case, you can potentially deny surface access to any operation that would violate NEPA regulations, including this one. This activity also violates the intent and language of the 1964 Wilderness Act. I strongly support the "No Action" alternative. Below I have listed several suggestions for your consideration. 34-1

1. Reissure the draft EIS with a fuller range of alternatives. It is lacking or weak in many areas, including a poor understanding and incomplete analysis of impacts on cultural resources, wildlife, and wilderness use. These aspects need to be more completely addressed.

2. At least 51 acres will be totally unreclaimable following mine operations. In a wilderness area this is completely unacceptable. At least insist on full reclamation of land, and compliance to all pertinent regulations and laws. 34-2

3. I am astounded that, with a 50% chance of slope failure at the site, you are even considering allowing mining to go ahead. This presents a clear danger to recreationists in the vicinity.

4. Consider the possibility of an outright buyout or some form of trade with the owner. Give the owner a chance at selling the rights at a fair market value. This would create a situation in which everyone would "win".

5. I remember in the news some time ago that the owner was cited for trespass with a motor vehicle in the Wilderness, and unauthorized use of a bulldozer, in clear violation of federal law. This man has demonstrated his contempt for societal values and the law, so I must question why you are considering allowing him to proceed with the operation in the first place. 34-3

I hope these comments are constructive, and will be of some use to you. Again, thank you in advance for considering my concerns on this matter.

Sincerely yours,

John R. Spence

John R. Spence

P.O. Box 1507
Page, AZ 86060

The agency disagrees that this activity violates the language of the Wilderness Act, but admits that the proposal presents a dilemma for interpreting the intent of the act. A discussion of the dilemma is found on page I-10.

34 - 1
The purpose for preparing an environmental document regarding impacts of a proposal for surface access is to comply with NEPA regulations. This Act makes the Federal Government responsible to assure in the Nation's pursuit of a wide range of beneficial environmental uses, that degradation, risk to health and safety, or other undesirable/ unintended consequences do not occur. NEPA regulations require environmental information to be made available to public officials and citizens before decisions are made and before actions are taken. The regulations also require the agency to consider every significant aspect of the environmental impact of a proposed action. Based on the Act and regulations, the agency could make a decision to deny surface access as described in the no action alternative on page II-4. However, the proponent has legal rights which must be considered in the analysis process. The complexity of the situation is discussed in detail in Chapter I.

34 - 2
See response #3-3 and #37-7.

34 - 3
See response #14-2.
See section #1 response and response #8-1.

FILE COPY UINTA NF

JUN 12 '92

Mr. Richard C. Wilson
2111 Wiltz Drive
Des Plaines, IL 60018-4051

(35)

6-8-92

Dear Mr. Korp.

I am writing to make Comment on the draft EIS for an open pit mine proposal for the Mt. Nebo Wilderness

I urge you to reissue the draft EIS and include a more complete range of alternatives and to meet your responsibility to protect our public lands and resources. 35-1

It is clear the proposed mine cannot meet basic environmental and health requirements for clean water and soil protection under such a scenario

The EIS should take into consideration wildlife, sensitive species and cultural resources.

Sincerely, Richard C. Wilson

35-1
See section #1 response and response #8-1.

FILE COPY
UINTA NF
JUN 12 '92

(36)

Peter Karp
Uinta National Forest Supervisor
PO Box 1428
Provo, Utah 84603

Dear Mr. Karp:

I'm writing to you to express my concern over the proposed gypsum mine at the boundary of the Mt. Nebo wilderness area. I realize that your hands may be tied in certain regards due to the antiquated 1872 mining act, but as surface rights owner, the Forest Service has a responsibility to preserve the wilderness values associated with those rights. The least of which would be to insist on full restoration of the surface with no compromise on this point.

Since the subsurface rights were purchased for $10, the Forest Service could offer to buy out these rights. Seeing how gypsum isn't of strategic importance and sheet rock isn't in short supply (to the best of my knowledge) you could probably pick it up for a very reasonable price. It certainly isn't worth trashing this portion of the Mt. Nebo Wilderness to supply the world's demand for sheetrock. 36-1

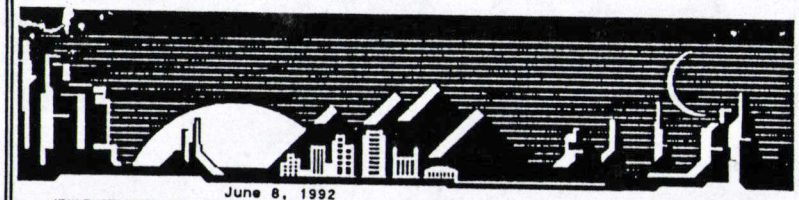
I would ask you to reissue the EIS with these points taken into consideration.

Sincerely,

James Kay

JAMES KAY
45 North Silver Oak Road
Salt Lake City, Utah 84103

36 - 1
See section #1 response and response #8-1.



UTAH CHAPTER SIERRA CLUB
177 EAST 900 SOUTH, SUITE #102
SALT LAKE CITY, UTAH 84111
(801) 363-9621

Uinta Group Chairs

Clyde F. Gillette 1962-1964
Gwen E. Casey 1965
William Vincent 1966
Fred Montmorency 1967-1968
June Viavant 1969

Utah Chapter Chairs

June Viavant 1969-1970
Paul Salesbury 1971-1972
Ruth A. Freer 1972-1974
Del Wiens 1975-1976
Jack McClellan 1977-1978
Paul Salesbury 1979
Brian H. Beard 1980-1981
Alan Miller 1982-1984
Joan Bergen 1984-1985
Gibbs M. Smith 1986-1990
Ed Blankman 1991-

FILE COPY
UINTA NF
JUN 12 '92
FILE CODE 1950/2820

June 8, 1992

FOUNDED IN 1962 BY CITIZENS OF UTAH

37

Mr. Peter Karp
Unita National Forest Supervisor
P.O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

Enclosed please find comments from the Utah Chapter Sierra Club on the Gardner Canyon Gypsum Mine Proposal DEIS.

We believe that the environmental analysis in the DEIS is inadequate and cursory. It does not address impacts from the the proposed mine on wilderness values in the Mt. Nebo Wilderness Area in any detail. It fails to provide specific mitigation measures for expected impacts, instead making vague references to the incorporation of some "appropriate" measures in the final Plan of Operation. The damage would be irreparable; the Forest Service admits that 50 acres will be totally unreclaimable. 37-1

The projected life of the mine is completely unknown, making cumulative and long-term impact analysis almost impossible. It is difficult to see how this document and the alternatives proposed satisfy requirements under NEPA, Forest Service regulations, and the Wilderness Act to examine and protect the natural values of this wilderness area. 37-2

We wish to address the following specific concerns:

I. The DEIS does not provide an adequate range of alternatives. 37-3

The alternatives analyzed within the context of this DEIS are based primarily on access routes. As the holder of the legal property interest in the surface estate, the Forest Service has both the right and the obligation to ensure that surface-disturbing activities and impacts sustained in the course of mining for privately-held mineral interests are mitigated to the fullest extent. 37-4

printed on recycled paper

37 - 1
We agree, and the FEIS has been changed to address this. See comment 37 - 7.

37 - 2
We agree that specific mitigation measures were lacking. This information is unavailable due to the costs and impacts to wilderness that would be involved with obtaining it. See page IV-20.

37 - 3
This document (EIS) analyzes alternatives and impacts associated with the request for a special use permit to access said lands covered under the outstanding mineral rights. The document includes analysis of effects from the connected action of mining. The alternatives explore options associated with the request for access. The analysis does not explore alternatives for mining the ore body. The proponent has a legal right to mine. Mining methods, mitigation, and reclamation are developed as the proponent submits an operating plan, under state law, with the Department of Oil, Gas, and Mining, and through negotiations with the Forest Service. A more detailed definition of the scope of the analysis is described on page I-1.

37 - 4
The agency agrees that it has a right and an obligation to ensure that impacts associated with the proposal and mining are mitigated to the fullest extent possible. See page I-7.

Utah State law and the Forest Service Manual provides the surface owner (Forest Service) with the opportuntity to negotiate a standard of "reasonableness" with regard to use of surface resources. The alternatives presented fail to adequately examine this "reasonableness" standard as part of any proposal, and deal mostly with the question of access. While the issue of access routing and the terms of the accompanying special-use permit is an important consideration, mining operations as a whole affect a greater area and will result in more long-term damage than access roads. 37-5

The DEIS states that the Forest Service lacks the regulatory authority to impose conditions on the mining operations; we disagree. While the agency may have its options limited somewhat by these patented mineral claims, it still holds rights to the surface land and a responsibility to protect wilderness values to the fullest extent possible. The range of alternatives presented do little to ensure this kind of protection. The Forest Service should more actively pursue purchase of these mineral rights or development of alternative mining operations. The highly speculative nature of the economic validity of this proposed mine warrants more careful study and the development of a wider array of alternatives. 37-6

II. Proposed mitigative measures are vague and their design paramters deferred to the Plan of Operation.

While the DEIS identifies some rather serious environmental consequences as a result of mining operations in Gardner Canyon, it provides little substantive remediation anmd reclamation measures to reduce or counterbalance the expected damage.

The impact to hydrologic resources from mining activities, for example, appears to be great. The DEIS indicates that mass slope failure is a highly likely consequence (at least 50 %) from the construction and use of the mine and access roads, yet proposes only "adequate performance bonding to assure erosion control needs" (IV-8) as mitigation. The DEIS states that erosion control measures would be incorporated into the Reclamation Plan, Operating Plan, and Permit, yet these proposed measures are not site-specific for the purposes of this analysis. The probable success of these boilerplate measures under such steep slope and soil conditions is not examined, rendering the DEIS impact analysis incomplete and inconclusive. While water quality would be monitored, there does not appear to be any mechanism to cease operations should monitoring find that the water quality has deteriorated to unacceptable levels, nor explanation of what specific actions would be taken for this mining operation to prevent increased runoff from compromising water quality. 37-7

The rest of the DEIS examination of environmental consequences is similarly vague. Mitigation for air quality impacts would include

37 - 5
See response #37-3

37 - 6
See response #37-3. The agency does have an obligation and a responsibility to protect surface resources to the fullest extent possible but it does not have the authority to regulate the mining operation (see page I-12). A discussion of pursuing acquisition of the mineral rights is covered on pages I-10 and II-2.

37 - 7
The EIS addresses the decision space of the agency. The focus is on the request for a special use permit to access said lands. As described on page I-9, the question of why the Forest Service can't do more to regulate the mining operation is addressed. The agency is not addressing a specific mining proposal but rather, the fact that the proponent reserves the right to remove ore within said lands based on his outstanding mineral rights. The type of operation will depend upon:

1. The operating plan approved and permitted by the State (which is a function of the type of operating plan the proponent submits to the State).

2. The terms of the agreement which are negotiated by the agency and the proponent. Because the agency cannot request and hold the proponent to a specific operation, specific mitigations cannot be put forth in the document. To predict impacts to the environment, a "worst case" scenario is analyzed in the environmental consequences section. The effects described in this section are based on a worst case analysis. That is not to say these effects would occur. Comments raised here have also been addressed in more detail in Chapter I.

37 - 8
See response #14-2.

"appropriate" requirements and measures; soils would be protected by a yet-to-be-designed reclamation plan. No mitigation is proposed for impacts to wilderness values. Critical winter range for deer and elk on 60 acres would be lost; seasonal restrictions would do little to restore this lost vegetation and probable wildlife displacement from the vicinity of the mine.

The DEIS appears to operate under the assumption that once adverse consequences are identified, the mitigation will take care of itself in later documents at a later date. It also places the burden of clearances and permits on the Army Corps of Engineers, State Department of Environmental Quality, and the Utah Division of Oil, Gas, and Mining without analyzing the positive or negative impacts and mitigative measures included in these permits. This is unacceptable; NEPA requires detailed analysis of impacts, including the reasonable ability of the agency to mitigate damage and reclaim the disturbed surface area. The Forest Service seems to be resigned to the "fact" that there will be heavy resource damage to the operation area regardless, and that there is little they can do about it. We are disappointed in the passive stance the agency has assumed in this matter.

We request that a revised DEIS be prepared which identifies specific actions to be incorporated in a Plan of Operations which would successfully mitigate the environmental consequences from mine operations. 37-7

III. Reclamation is required but assumed to be ineffective on the majority of the mine site.

It would appear to be an exercise in futility to require reclamation of the areas disturbed by mining activities while at the same time stating that approximately 50 acres of the site will be non-reclaimable. This figure doesn't even take into account soil losses due to mass slope failure and probable erosion. It would certainly appear "reasonable" for the Forest Service to require better reclamation results that those they predict for the surface area impacted by the mine, yet the the agency appears to accept these projections as the best they can expect.

Again, no specific reclamation measures are provided; mention is made that it should be "timely" and "ongoing". Yet the Forest Service admits that under the current DEIS examination, reclamation will essentially be unsuccessful. This is unacceptable.

We request that specific reclamation requirements and timetables be included in a revised DEIS, and that operations be designed to maximize mitigative and reclamatory success in revegetating and recontouring the mine site and access route.

IV. More information should be required of the operator before a state permit or mining plan of operation is granted or approved.

The DEIS states that "there is no legal requirement for the proponent to submit...a long range mining plan." Yet the Forest Service, as holder ofthe surface rights, deserves to know more about the proposed mining operation than it has currently received. The agency admits that there is a wide disparity between the proponent and the U.S. Bureau of Mines on the estimated amount of ore on the claims and that the extent and feasibility of extracting the ore is still in question. There are far too many variables in this proposal to make an adequate assessment of its environmental impacts. Cumulative impacts are almost impossible to determine, given the paucity of information and the open-ended nature of the operation (the Forest Service doesn't even proposed a schedule for evaluting cumulative impacts over the life of the mine). We do not see how this project can be allowed to proceed without more information as to the size of the ore body, the feasibility of extracting it, and the operation design necessary to protect other resource values. The Plan of Operation included in the DEIS appendixes is so vague ("reclamation will be done"; no mention of how!) that any realistic analysis of the impacts is unlikely. 37-7

The proponent has already conducted on-site work without authorization and has been cited for trespass; these instances demonstrate a lack of good-faith intentions on the part of the operator and further highlight the need for greater specificity in all plans and permits, as well as adequate bonding for reclamation. 37-8

The "Agreement of Terms" cited in the DEIS (II-4) isn't particularly helpful. Again, it bandies about terms like "appropriate", "timely", "prudent", "goals", and "adequate", without specifying how these terms are to be achieved or how they will protect surface resources. How much daily road traffic is estimated to and from the mine? What support facilities will be required for the workers? Where will the water for dust suppression be obtained? What are the "goals" for wildlife displaced by operations? Does the agency have the resource to adequately monitor mining activites and impacts?

We request that the "Agreement of Terms" be revised with sufficient specificity to render it a useful and binding document, and that the environmental impacts of these terms be adequately analyzed. 37-7

V. General Comments

In general, the analysis of environmental consequences from this mining operation is sketchy. Impacts are examined almost summarily, and require greater detail in a revised document.

Most troubling, however, is the seemingly apathetic response by the Forest Service to this mine proposal. The agency appears resigned

to the notion that there is little it can do to prevent serious degradation to wilderness values from mine operations. While the gypsum mine proposal is a grave threat to the wilderness qualities of the immediate area, the Forest Service could take a more aggressive role in designing and specifying mitigation and reclamation measures. The Forest Service should be more exacting of the operator in its request for information on operations, and utilize its position as holder of the surface rights to require the best available technologies and techniques to protect surface values. The agency can also look at possible means of securing the mineral rights, thereby halting construction of the mine completely.

We request that the Uinta National Forest undertake a revised DEIS that addresses the issues we have raised in our comments. We are sure the Forest Service agrees that this proposed mine will have serious consequences to the wilderness values of the Mt. Nebo Wilderness Area, and that every means possible should be explored to mitigate or deter its impacts.

Thank you very much for the opportunity to comment. Please send me a copy of any further environmental documents on this proposal as they become available.

Sincerely,

Christine Osborne
Public Lands Specialist
1536 East 3080 South
Salt Lake City, Utah 84106

FILE COPY (38)
UINTA NF

JUN 1 '92

June 15, 1992

United States Department of Agriculture
Spanish Fork Ranger District
44 West 400 North
Spanish Fork, UT 84660

Attn: Tom Tidwell

Dear Mr. Tidwell:

This letter is a follow up to our telephone conversation on June 11, 1992, in which you suggested we write a follow-up letter to our original dated 4-25-91 (copy enclosed), concerning the proposed Gardner Canyon Gypsum project.

After reading the Uinta National Forest "Gardner Canyon Gypsum Mine Proposal" Draft Environmental Impact Statement draft, we felt our concerns were not stated correctly or strongly enough.

Please note in paragraph two of our original letter, our first concern was that the culinary water would be affected. We know after the landslide in 1983 in the area, the water was greatly affected. Both due to the decrease in the amount and route of flow around the slide. We now fight reduced amounts of water and increased sediment. 38-1

We also use this water for our livestock operations, in which the entire or parts of our living comes from. If it wasn't for this water, our business and livelihoods would be negatively affected.

In the draft, there was mention of the irrigation use of the water, but we felt it was not mentioned strongly enough. Please refer to the Summary, Page S-4 #3, Socio-Economic Environment. This reference to the importance of the Gardner Canyon water did not do justice to our original letter and our present concerns.

We are asking that you include this letter to be entered in the final draft in its entirety.

Thank you,

Gordon McPherson
President
Gardner Canyon Irrigation Company
Nephi, Utah 84648

38 - 1
See response #4-1 and page I-11 in the DEIS.

April 25, 1991

UNITED STATES DEPARTMENT OF AGRICULTURE
SPANISH FORK RANGER DISTRICT
44 West 400 North
Spanish Fork, Utah 84660

Attention: Judy Schutza

Dear Ms. Schutza;

In response to your attached letter dated April 15, 1991 (Reply to: 1950), we the Gardner Canyon Irrigation Company have comments on the Gardner Canyon Gypsum project which is nearing completion. We would like the comments included as part of the draft.

We have approximately twelve share holders that use this water for culinary , stock and irrigation purposes. This water was filed upon over one hundred years ago and we established and have maintained the system since. This water is and has been a vital part of our lives and businesses. In 1983 the area experienced a slide to the upper area of the system, which we feel inpart was due to roads that had been cut into the area from other enterprises and the heavy winter. This drastically cut our water flow.

Since then we have been attempting to reclaim our water. We are currently working with our local Forrest Service and A.S.C.S. Offices to do this. We have been denied access to the area to work on this, on anything but a horse or afoot, by the Forest Service as this has now been included as part of the Wilderness Area. (We are in the process of appealing that decision).

So with our water already drastically reduced and our attempts at reclaiming it so far futal, we feel a mining operation of Gypsum, with heavy equipment passing in the area would only impede our reclaimation project and possibly do more harm.

Another concern is the overburden harvested from the project. What will be done with this? Will it be left or scattered over the same area?

We the Gardner Canyon Irrigation Company would like precautions taken to protect and ensure that continuence of our water supply.

We also request a copy of the draft be sent to us.

Thank you,

Gordon McPherson
President

June 11, 1992

(39)

Dear Mr. Karp,

I am writing regarding the proposed open pit mine within Mt. Nebo Wilderness. I would like for the Forest Service to reissue the draft EIS and include a more complete range of alternatives. One alternative is that the Forest Service purchase the outstanding mineral rights.

If the land must be mined, please insist on total reclamation & compliance with all laws. I think the fact that most of the area would be unreclaimable is unacceptable.

Ellen David

39-1

39 - 1

See section #1 response and response #8-1.

John R. Swanson
3400 Edmond Blvd.
Minneapolis, MN 55406

(40)

FILE COPY

June 9, 1992.

Uinta National Forest
PO 1428
Provo, Utah 84603

Dear Sirs;

Please accept my following comments concerning
proposed open-pit [illegible] in the Mt Nebo Wilderness.

I wish to advise of my opposition to the proposed open-pit mine within the Mt Nebo Wilderness.
As such intrusion will destroy this unique, rapid, and fragile wilderness and may I suggest a buyout of the pertinent property so as to save our precious Mt. Nebo Wilderness.
For when we save Wilderness, we save America!

Sincerely,
John R. Swanson

40-1

UINTA NF
JUN 15 '92

FS
SECT
AO
ENG
R N L
SWI
FF
D-1
D-2
D-3
FILE CODE

40 - 1
See section #1 response and response #8-1.

(41)

FILE COPY

6/12/92

UINTA NF

JUN 15 '92

Mr. Peter Karp
Uinta National
Forest Supervisor
P.O. Box 1428
Provo, UT 84603

Dear Peter,

This is in regard to the proposed open-pit gypsum mine in the Mt. Nebo Wilderness.

I'm in favor of preserving the property for wilderness. As a carpenter by trade (albeit disabled but looking ahead to recovery and resuming it - with environmentalist concessions) I appreciate the use of gypsum. Yet my lifelong priority of esthetic and 41-1

41-1
See section #1 response and response #8-1.

health concerns prompts me to encourage preservation & maintenance of wilderness.

We're having quite a time getting and trying to get wilderness legislated around this region. We managed to get a number of areas designated and BLM is cooperating & encouraging us to make our own studies & data for more areas. I worked for Fish & Game one summer in 1972 and never saw such enthusiasm as our recent work by citizens. 41-1

As well as for wilderness some of us have initiated major inner-city waterway and park cleanups to improve the quality of our lifestyle. The City has joined this incentive with good effect

I never could figure out why incongruous actions occur, such as surface land preserved but its subsurface being sold for other use. However it happens, of recent years has been initiated the conciliatory Mining Reform bill. A professor I met in the Sierra Club, Dr. Miller, has had much to do creating the bill. It provides for relatively small land disturbance, its reclamation, then being allowed to mine another plot. 41-1

This reclamation clause would seem the only worthwhile compromise in this issue, but I don't know how effective it'd be in this gypsum/wilderness circumstance. Total protection perhaps.

4

I ask that the Forest Service reissue the draft EIS and include a more complete range of alternatives. 41-1
The Forest Service and any other relevant offices should meet its public responsibility to protect public lands and resources.

Sincerely yours,

Stephen Alastuey
1645 Jackson Place
Reno, Nevada 89512

FILE COPY
UINTA NF (42)
JUN 15 '92

PATRICK D. COLLINS
290 East 1230 North
Springville, Utah 84663
(801) 489-0450

June 9, 1992

Peter Karp
Uinta National Forest Supervisor
P.O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

It has come to my attention that an open-pit gypsum mine is being considered in the Mt. Nebo Wilderness area. I would like you to send me more information about the proposed mine. 42-1

The Mt. Nebo area is a beautiful and relatively undisturbed natural area. The area also has unique and pristine qualities which were obvious when the area was designated as "wilderness". Therefore, my initial reaction would be negative toward mining in this wilderness area. You see, I know the mountain fairly well because I did graduate botanical work there in the early 1980's and have visited the area on a regular basis since then. The botanical work was funded, in part, by the USDA Forest Service.

Although the 60 acres proposed is a relatively small area, I feel roads to the area would negatively impact some of the unique values of the area. I would therefore support considering a wide range of alternatives for mining there, favoring buy-out or trades to compensate the developer. Again, because I am very interested, please keep me up-to-date on the proposed plan. 42-2

Sincerely,

Patrick D. Collins

Patrick D. Collins, Ph.D.
Biologist

42 - 1
A copy of the FEIS is being sent to you.

42 - 2
See section #1 response and response #8 - 1.

FILE COPY

(43)

Juab County

The "Key" County of Utah

Juab County Center
146 North Main
Nephi, Utah 84648

Board of Commissioners:
Jay M. "Ike" Lunt, Chairman
Richard M. Brough
Joseph A. Bernini
Tele. (801) 623-1507
Fax (801) 623-4809

Administrator
Randy L. Preston
Tele. (801) 623-1507

Assessor
Norman L. Anderson
Tele. (801) 623-1423

Attorney
Donald J. Eyre Jr.
Tele. (801) 623-1141

Clerk/Auditor
Pat P. Greenwood
Tele. (801) 623-0271

Economic Development
Glenn W. Greenhalgh
Tele. (801) 623-2411

Justice Court Judge
Nephi Precinct
Sharla T. Williams
Tele. (801) 623-0860

Justice Court Judge
Eureka Precinct
Charles H. Blough
Tele. (801) 433-6346

Recorder
Craig J. Sperry
Tele. (801) 623-1420

Road Department
Sherman O. Peterson
Tele. (801) 623-1508

Sheriff
David H. Carter
Tele. (801) 623-1344

Treasurer
Joyce C. Fay
Tele. (801) 623-0096

June 15, 1992

UINTA NF

JUN 1 5 '92

United States Department of Agriculture
Forest Service, Intermountain Region
Uinta National Forest
88 West 100 North
P.O. Box 1248
Provo, Utah 84603
Attn: Peter W. Karp, Forest Supervisor
Uinta National Forest

Re: Comment on the D.E.I.S. for Gardner Canyon Gypsum Mine Proposal / Uinta National Forest

Dear Mr. Karp:

The Juab County Board of Commissioners was pleased to review the Draft E.I.S. as referenced above. Our Board notes that this Draft Document has approached the need for action on this issue and has proposed three alternatives to deal with the situation.

As you may be aware, Juab County and the Juab County Board of Commissioners strongly opposes the presently imposed Wilderness Act as it affects the Nebo Range.

It is the goal and responsibility of our Board of Commissioners to protect the people and the welfare of Juab County. This policy includes the preservation of the economy of Juab County.

43-1

By review of the three alternatives listed in the above referenced Draft E.I.S., our Board of Commissioners strongly states that alternative B is the only plan that should be approved for implementation. It is also the opinion of our Board of Commissioners that Alternative B has best analyzed the economic feasibility of continuing with this vital operation in Juab County.

43 - 1
Thank you for your comments.

June 15, 1992
page 2

Our Board of Commission is once again pleased to respond to this issue for the good of Juab County.

Sincerely,

Jay M. Lunt, Chairman

Richard M. Brough

Joseph A. Bernini

RLF/rlf/boc
CC: File
Legislative body

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

FILE COPY
UINTA NF
JUN 17 '92
(44)

June 15, 1992

Mr. Peter W. Karp
Forest Supervisor
Uinta National Forest
P.O. Box 1428
88 West 100 North
Provo, Utah 84603

Dear Mr. Karp:

Re: Response to Draft Environmental Impact Statement, Gardner Canyon Gypsum Mine, S/023/015, Juab County, Utah

This letter is provided in response to our receipt of a copy of the Draft Environmental Impact Statement (DEIS) prepared by the USFS for the Gardner Canyon Gypsum Mine proposal. The mine will be located within the Mount Nebo Wilderness area on the Uinta National Forest.

The Division has no formal comment on the DEIS. Should the operator submit a Notice of Intention to Commence Large Mining Operations we will perform a comprehensive technical review of the proposal. To date, we have only received and processed a complete Small Mining Notice of Intention for this site. Appendix A, in the DEIS, does contain a proposed Plan of Operations, submitted by the operator. In its present form, this plan is not complete and is inadequate for our review purposes. The plan would require further refinement/development, significant supplemental information and resubmission according to State statutory & regulatory requirements, before the Division could consider approval. Under Utah law, the operator will have to provide strong justification in order to be granted a variance(s) for any disturbed area(s) of the mine site to be left unreclaimed. 44-1 44-2

Thank you for providing us with an opportunity to review and comment on this draft document. We appreciate your cooperation and interest in maintaining

44 - 1
Thank you for your comments.

44 - 2
The Forest Service agrees that the Plan of Operation form submitted and included in the DEIS appendix A, does not contain adequate information. The agency needs to receive a supporting need for the access request. The plan of operation submitted by the proponent, though not accurate enough to develop specific reclamation requirements, does support a need for access.

the sound working relationship between our respective agencies. We look forward to working with you on this and other projects in the future. Please contact me, D. Wayne Hedberg, or Holland Shepherd of my staff if we can be of further assistance in this regard.

Best regards,

Dianne R. Nielson
Director

jb
cc: Lowell P.Braxton, DOGM
Wayne Hedberg, DOGM
S023015.eis

Wilderness Watch
Box 9175
Missoula, MT 59807
(406) 542-2048

June 13, 1992

FILE COPY
UINTA NF
JUN 17 '92
45

Mr. Peter Karp
Forest Supervisor
Uinta National Forest
P.O. Box 1428
Provo, UT 84603

Dear Mr. Karp:

Wilderness Watch is deeply concerned with the proposal for an open pit gypsum mine within the Mt. Nebo Wilderness. We believe the Forest Service must fully investigate any and all reasonable alternatives to the proposed mine, that it must exert all of its authority in protecting the Mt. Nebo Wilderness and that it must fully and carefully analyze the impacts of this mine on the Wilderness resource. We believe the draft environmental impact statement has failed on all of these counts and encourage the Forest Service to revise and reissue the draft EIS. 45-1

The DEIS should have considered an alternative that included purchasing the outstanding mineral rights. This is the solution that offers a "win-win" scenario for all parties. While the mineral owner may initially ask an unreasonable price, that could certainly change when he understands the full ramifications of mining in a wilderness area. We strongly encourage you to analyze an alternative that considers a buy-out and to aggressively pursue this option with the mineral owner.

The proposal to allow a mine that would result in a 50-acre unreclaimable impact in the Mt. Nebo Wilderness is unacceptable. The DEIS notes that as the surface "owner" the Forest Service has rights under state law to protect its interest from unreasonable, careless or negligent use of the surface. Clearly, unreclaimable impacts are an unreasonable burden on the surface owner. The Forest Service must exercise its rights under state law to prevent the impacts from the open pit mine. State law also requires the land be returned to a stable ecological condition compatible with present and future proposed uses. The proposed mine is not consistent with returning the area to it's present wilderness character. 45-2

Because the claim block extends outside the Wilderness, the Forest Service has the responsibility to prohibit access across the Mt. Nebo Wilderness (36 CFR 293.12 and 293.13). This renders both action alternatives (Alternatives 2 and 3) 45-3

45 - 1
See section #1 response and response #8-1.

45 - 2
The agency agrees that it has a right to protect the surface resources from unreasonable surface impacts. The agency also realizes that the mineral rights owner also has a right to be protected from unreasonable restrictions being placed on his legal right. Herein lies the challenge - to determine what is reasonable and what is unreasonable. This concern is carried forth in the supplement on page I-2.

45 - 3
This concern is carried forth in the supplement on page I-10.

in violation of Forest Service regulations. Again, the lack of a reasonable array of alternatives plagues the draft EIS.

There is no question the Mt. Nebo Wilderness will be severely harmed by the proposed mine. The Forest Service must display leadership in preserving wilderness values and preventing unnecessary degradation. The DEIS portrays a very passive agency, unwilling to exert its authority to protect the resources under its charge, and unwilling to pursue alternative solutions that will avoid damage to the Wilderness. We again urge you to reissue the draft EIS with reasonable alternatives that will protect the Mt. Nebo Wilderness while meeting the needs of the subsurface owner.

Sincerely,

William A. Wolf
President

UINTA NF

FILE COPY (46)

JUN 17 '92

June 12, 1992

Mr. Peter Karp
Supervisor
Uinta National Forest
P.O. Box 1428
Provo, UT 84603

Dear Mr. Karp:

I write to you regarding the open pit gypsum mine inside the Mt. Nebo Wilderness. I refer you to the last letter I wrote on this issue for background on my feelings toward the ridiculous direction the USFS is moving in not outright forbidding this obstruction of wilderness.

At this time, it is totally warranted to reissue the draft EIS with a more complete range of alternatives that meet the public responsibility to protect our precious public lands and resources. One of the alternatives should be a "buyout" alternative. 46-1

Total reclamation, bonding, and legal compliance regarding surface values must be achieved. There is absent a careful analysis of impacts the operation will have on cultural resources, wildlife, sensitive species and the Nebo Wilderness. And there is lacking a close analysis of the legal responsibilities of protecting the wilderness.

Therefore, a reissue of the draft EIS is necessary. And this time the public will be served by including the above mentioned additions to the document.

Sincerely

Margaret Pettis

Margaret Pettis 190 S. 100 W., Hyrum, Utah 84319
(801) 245-6747

46 - 1
See section #1 response and response #8-1.

FILE COPY

(47)

Utah Wilderness Association

455 East 400 South #306/Salt Lake City, UT 84111/(801)359-1337

UINTA NF

JUN 1 '92

June 15, 1992

Peter Karp
Forest Supervisor
Uinta National Forest
PO Box 1428
Provo, UT 84603

Dear Peter:

Enclosed are the comments of the Utah Wilderness Association on the proposed gypsum mine inside the Mt. Nebo Wilderness. From the outset we want to emphasize the Forest Service's obligation to protect wilderness values. To that end, we are very disappointed in the draft EIS. It glosses over the importance of wilderness values and does not represent the importance of continuing to protect those values. There are, however, options which should be pursued to protect the wilderness and recognize any legitimate interests of the mineral property owner.

Adequacy of the EIS

While this DEIS certainly portrays a picture of the environmental impacts of mining within a wilderness, the mandates of NEPA are not met on some major issues. For example, the lack of an adequate array of alternatives is profound as is the failure in the EIS to look at the scope of the document in conjunction with Forest Service administrative authority. The greatest failing, however, is that the Forest Service has assumed that it has no authority to preclude mining at the designated site, or short of that, to prescribe the type of mining activities which occur. We feel this is improper and an abrogation of the Forest Service's authority and role. 47-1

The lack of alternatives to the proposed action, particularly an alternative which would meet legal constraints for protecting the wilderness, is critical. NEPA and the CEQ regulations require analysis of a range of alternatives so the decisionmaker can have the information from which to make the best decision. It is not merely a paper exercise but a rigorous exploration of alternatives and options so the best informed decision can be made (see 40 CFR 1500, 1501.2(c), 1502.1 and 1502.14). In fact, the alternatives are considered "the heart" of an EIS (40 CFR 1502.14). Here, the Forest Service has failed to consider the alternatives of a purchase or exchange, or some type of underground mining as opposed to surface mining. 47-2

Of the three alternatives, only no action protects the wilderness. And the Forest Service claims this alternative is not legally feasible. We strongly disagree (see section entitled "Mineral Holdings"). The other two alternatives leave the wilderness needlessly harmed and that is contrary to the purposes for which the wilderness was established.

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47 - 1
The agency disagrees with your statement that the Forest Service has authority to preclude mining. The agency has a responsibility to protect surface resources but it has no authority to flatly preclude mining. The agency also has no regulatory authority set forth in Federal regulations to prescribe the type of mining activity which will occur (see page I-2). The agency does have Federal regulations which set forth the responsibility of the agency to protect National Forest System lands. The agency will exercise this responsibility through Utah State law and negotiations with the proponent.

47 - 2
See response #37-3 and #37-7. The DEIS did explore an alternative of underground mining, with respect to access (page II-2).

47-3 The Forest Service has a significant and equal responsibility clearly laid out in policy to avoid the denigration of wilderness while seeking compatible mineral development scenarios. Without equivocation that is not possible as this proposal has been portrayed. Thus the agency clearly must seek another alternative. The principles adopted by the Forest Service which guide wilderness management take precedence. If the agency allows an unreclaimable strip mine for an unimportant mineral then it is placing wilderness in an inferior position, in violation of its own policies and federal law.

47-4 The only way to remedy this serious flaw in the draft EIS is to reissue the draft with a real array of alternatives that explore options to protect the wilderness. For example, the buyout or tradeout option of the mineral property should have been considered. This alternative protects both the wilderness and provides compensation for the minerals.

47-5 The EIS's failure to analyse this alternative is based upon erroneous and incomplete information (page II-1 and II-2). For example, it is presumptuous to assume that the mineral owner would not grant permission to drill the ore body to help determine its value if permission has not been requested. There is no indication that the Forest Service even sought permission to do so. Yet, without this information it is impossible to determine whether or not the gypsum is of sufficient value to warrant mining.

47-6 The Forest Service must exert leadership in preserving wilderness values rather than taking a passive role allowing wilderness to be destroyed as though it continues to be unimportant in the multiple use scenario. This issue speaks to a significant generic concern as well as a specific wilderness destruction issue. Our preference is that the agency must seek funds to purchase or trade out of this parcel of land. Options include an aggressive wilderness-protection-based negotiation with the subsurface owner to assure both fair private compensation and public protection, pursuing the LWCF, the Wilderness Land Trust, a private organization dedicated to purchasing inholdings within the National Wilderness Preservation System (we've enclosed their address and mission statement/protocol as an appendix to this comment), contacting the key congressional leadership to assist in purchasing the claims as well as other options, including condemnation.

It is also wrong to dismiss analyzing this alternative because it would require a financial investment of the Government. It is not a reluctance to invest government resources, rather it is misplaced priorities of an agency which sees limited value in protecting legally established wilderness areas.

How can the DEIS state that "land values do not support condemnation or a priority" for exchange or "purchase" in the absence of an appraisal (page II-2)? Again, this part of the DEIS really reflects the agency's disregard for wilderness values rather than any economic imperative. An alternative that proposes purchase or trade of the mineral property would also benefit all interests. It is the one alternative that would result in a win- win situation.

The EIS also hastily dismissed other potential alternatives such as primitive or underground mining. While these alternatives may seem prohibitive or infeasible from the perspective of the mineral owner, it is no more reasonable to require the public to sacrifice its wilderness and subject 50 plus acres to never being reclaimed with a 50% chance of massive slope failure. The Forest Service seems willing to abandon the broader public interest and the uniqueness of the Mt. Nebo Wilderness. This legal and binding interest can't be terminated simply because it

47 - 3
We agree. See response #45-2.

47 - 4
See response #8-1.

47 - 5
The value of the ore body has no bearing on the analysis. The proponent has a legal right to mine the mineral estate which he owns.

47 - 6
See section on Federal Acquisition of the Mineral Estate, page II-2.

is easier or more expedient to grant the right to mine gypsum in an unreclaimable strip mine. The agency has a much more meaningful and complicated role to play and require a bit of leadership by the professional managers within the agency. The surface owner--the public--has rights in this instance and the Forest Service has the duty to see those rights are protected.

Since the NEPA requirements for adequate analysis of alternatives have not been met, a new draft EIS should be issued exploring other alternatives. That is the only logical course of action. The purpose of NEPA is to disclose impacts from agency sponsored activities affecting the human environment. Yet the agency has failed to take this required "hard look" at the full scope of alternatives to strip mining within a wilderness because of a false view that the agency has no decision authority. This is a "self fulfilling prophecy" rather than a realistic view of the public interest the agency is supposedly serving. CEQ regulations require, without exception, that the managing agency review and disclose impacts from a full range of alternatives even if some decision making authority is denied the federal agency. In this case the later is not a factor because of the equal bilateral responsibilities associated with wilderness designation. This is made even more clear because the surface is not patented and can't be patented. Surface responsibilities remain. Yet, the agency has failed to look at the full scope of the project because of its belief that legal constraints prevent its decisionmaking authority. The CEQ regulations are clear that agencies are to consider impacts of the proposal, even if certain decisionmaking authority is denied the federal agency. We seriously question the agency's perception of lack of authority in this case. The Forest Service does have the right to protect the Mt. Nebo Wilderness and to preclude destruction of its surface rights. 47-7

Scope of the EIS

The DEIS is fatally flawed because it assumes that the Forest Service can only regulate access to the mine site. If the Forest Service only has authority for regulation of access to this mine site (a position with which we do not concur), that implies a special use permit of some sort must be obtained for access. Prior to issuing such a permit a full scale plan of operations must be developed because without such a plan even the access questions cannot be adequately addressed. Some unanswered questions include size and frequency of truck traffic, road design and maintenance standards. The DEIS clearly notes that no complete plan of operations is available. Thus, the DEIS is premature and does not analyze the impacts to the human environment from the project. 47-8

If, on the other hand, the Forest Service feels this EIS will be the NEPA documentation for a Record of Decision approving a plan of operations, a plan of operation must be analyzed in the EIS. This EIS does not meet Forest Service Manual regulation for mining if that is the case (see FSM 2800). Regardless of the alternative selected, the DEIS does not analyze the full impact of the project because of these undisclosed factors. Certainly the proponent and other entities (Utah Division of Oil Gas and Mining) need to provide more information so the EIS can meet NEPA's mandates. Reissuance of the draft is in order. 47-9

The scope of the EIS also affects the NEPA analysis of mitigation measures. Because of the lack of a plan of operations, there are no specific mitigation measures proposed under any alternative. The DEIS simply leaves these questions to future plans, which have not yet been quantified or even specifically identified (page IV-6). Again, this is a cart before the horse problem and the EIS should be reissued in draft once the proponent has done his homework in presenting a complete plan of operations 47-10

47 - 7
See response #37-7. Also, see page II-1.

47 - 8
The analysis is based on a request for access by the proponent. That request specified a type and location of access. The agency responded to the needs of the proponent. If a specific mining operation required a different set of criteria, then a new request would have to be made by the proponent and a new analysis would have to be done by the agency. See response #44-2.

47 - 9
The State of Utah, Department of Oil, Gas, and Mining, will issue a permit on an approved Plan of Operations. The Forest Service will provide input to the state and will negotiate reasonable surface protection based on that submitted plan of operation. The agency will not produce a NEPA decision document on a Plan of Operation as the agency has no decision authority on a mining plan.

47 - 10
See response #37-7.

Cumulative and Environmental Impacts

While the DEIS does a fair job in describing the broad brush of impacts to soil and water resulting from a mine inside a wilderness area, it is not site specific. The DEIS also includes some inconsistencies on expected impacts:

Soils/Water

47-11 The DEIS notes that no activities are planned in the wetland or riparian areas (pages IV-3 and IV-5). However, impacts are expected to occur, according to the DEIS. That inconsistency needs to be resolved. In reality, the riparian area can't be avoided because the stream and historical stream channel, which still hosts some riparian vegetation and was a stream prior to the diversion, is exactly in the location where gypsum would be loaded. To anyone who has visited the site, it is obvious the riparian/wetland area will be affected by the operations. The filter box and catchment device are within the claim block, thus, the conclusions in the DEIS are based upon logical inconsistencies.

47-12 On one hand we are told that there is a 50% chance of mass slope failure (a landslide), that such an event could contain 25,620 cubic yards of material and would be about 1/3 water. On the other hand we are told that the "size of, or potential for, a landslide is impossible to predict." Why is there this inconsistency?

Furthermore, without a specific mitigation plan, impacts to the riparian and wetland areas can't be guaranteed. Thus, it is disingenuous to state in the EIS that "mitigation requirements will assure that no net loss of wetlands will occur, except from the possibility of a landslide" when there is a 50% chance of mass slope failure and the possibility of moving 25,620 cubic yards of material.

What the DEIS does show about potential impacts is they are far too great to meet state reclamation and federal and state water quality standards. With a 50% chance of mass slope failure and over 50 unreclaimable acres, the current proposal does not meet even the most minimal environmental and health regulations

Wilderness Impacts

47-13 While the DEIS acknowledges the wilderness as a holistic resource which will be impacted by this mining proposal and simultaneously recognizes this mining proposal will "violate the majority of society's wilderness values," it tends to understate these holistic physical and social values. The DEIS attempts to argue concurrently that wilderness is not a separate resource but that impacts will be disjunct and separated to only 63 acres and 1 mile of road. Both the popular and scientific literature clearly reveal the perception that even small impacts upon designated wilderness create disproportionate impacts on the values of wilderness due to the holistic interconnectedness of wilderness. Without a doubt it can be argued the very essence of the Mt. Nebo Wilderness can be significantly denigrated by this significant unreclaimable strip mining proposal both from a social and biophysical perspective. The message which would be sent out by a strip mine is that wilderness areas are to be protected only when it is convenient to do so. This needs further elucidation and is essential to show the significance of this impact on wilderness. It will also help the Forest Service develop and understand the cultural and

47 - 11
As explained in the sections you refer to, the only concern for wetlands is that they could be affected by a landslide precipitated by mining activity. A remnant of riparian vegetation (estimated at ~1 acre) would be impacted on the northwest corner of the claim. The supplement has been revised to reflect this situation. The diversion structure (filter box and catchment device) you mention will be protected as it is a legal encumbrance on the property. If damage to this facility should occur, then the operator will be responsible for those damages.

47 - 12
The 25,620 cubic yards of material you refer to is not material that would move as a result of a landslide, but is an estimate of the material that would be transported and deposited downstream by a flash flood if a 100-year, 24-hour, storm of 3.00" magnitude were to hit the area in a fully disturbed condition. The size and impact of a landslide resulting from mining activity is much more difficult to predict, but the chances of landslide occurrence increasing with mining activity is certain. Our best estimate is that there is a 50% chance that a landslide would result from mining activity sometime during the project. Whether such a slide would block the creek and cover associated wetlands and riparian areas is purely conjectural, but it could happen.

47 - 13
The agency disagrees that the DEIS argues that wilderness is not a separate resource. Page III-7 of the DEIS clearly states "wilderness is to be managed as one resource." We agree that small impacts on designated wilderness can create disproportionate impacts on wilderness values, but the agency also agrees that the Wilderness Act does not preclude mining and the exercise of valid existing rights. Therefore, both of these rights are considered in the analysis.

social values the broad publics' place on wilderness. This also makes it exceedingly clear as to why the Forest Service must pursue a vigorous leadership role to seek an alternative as discussed above to prohibit this impact, while protecting the extant wilderness values and equitably meeting the valuation of the Gardner Canyon subsurface values.

Cultural Resources

47-14 The DEIS claims no cultural resources would be impacted for this proposal on the national forest system lands. However, there is no indication that a survey has been done. A survey must be accomplished to meet Forest Service and NEPA regulations prior to a decision.

Wildlife/Threatened, Endangered and Sensitive Species

47-15 The DEIS, appendix H, indicates that no known threatened, endangered or sensitive species are thought to use the area. Yet, there is no indication that the necessary surveys to meet Forest Service Manual and Endangered Species Act requirements have been met. For example, has consultation with USFWS taken place to determine the absence of endangered and threatened species? What about the peregrine falcon, which has been reintroduced to the Wasatch Front? It is not mentioned in the DEIS at all.

47-16 Furthermore, the DEIS notes in the affected environment section that there is no habitat for threatened and endangered species (page III-4). There is no indication, however, that there is a presence or absence of sensitive species. The affected environment section further notes (page III-4 and III-5) that Gardner Canyon is not critical habitat for goshawks though they may visit the area. Were any surveys conducted to determine this fact?

47-17 Although sensitive plant work has occurred in the Nebo area, the indication in the appendix is that there was no survey of what may exist on the site. Rather the studies were specific inventories of certain species. The recommendation found in appendix H to remove Aster kingii var. kingii from the region's sensitive list does not obviate the Forest Service from conducting a survey of this and other similar taxa in the project area. This aster is still a Region IV sensitive species and must be treated as such until removed.

47-18 The DEIS assumes game species will be affected up to about 1/4 mile from the project area (page IV-7). How was this figure derived? It seems inconsistent with other information from Forest Service research on elk, for example, that are affected at distances of 1/2 mile or more.

Cumulative Impacts

47-19 The DEIS fails to assess the cumulative impacts of adjacent mining claims held by the proponent. That is an important NEPA issue, particularly if the mine expands. Given the questionable nature of gypsum as a hard rock mineral, the proponent could claim the adjacent claims contain valuable deposits of gypsum. The cumulative impacts of development of these contiguous claims is required under NEPA (40 CFR 1508.25)

Mineral Holdings

47-20 The DEIS is also inadequate because it fails to examine whatsoever the legality and extent of Steele's claim holding. In fact, the Forest Service's entire position is that since the Steeles have

47 - 14
A cultural resource inventory was completed in 1990. This fact is indicated in the last paragraph of page III-1 of the DEIS.

47 - 15
A copy of the DEIS was sent to the U.S. Fish and Wildlife Service and we received a comment letter from that agency (see page VI-1). Two peregrine falcon surveys were completed on the area (see page III-5). Both a biological assessment, dealing with threatened and endangered species, and a biological evaluation, dealing with sensitive species, are included in Appendix B of the supplement.

47 - 16
The DEIS has been revised to indicate more clearly the presence or absence of threatened, endangered, and sensitive species. No goshawk surveys were conducted but an evaluation for this species was made. It was determined that the proposed disturbed areas are not critical habitat for goshawks because of the absence of aspen and/or large conifer trees. Thus, no surveys were completed and none are planned for the future.

47 - 17
A sensitive plant inventory has not been completed for aster kingii because the area does not include suitable habitat for this species.

47 - 18
The 1/4 mile determination was based on the fact that the steep, dissected topography in Gardner Canyon would provide the isolation needed so the wildlife species involved would not be affected beyond that point.

47 - 19
The DEIS does address the cumulative impacts of adjacent mining claims on page IV-16. See page IV-19 in the supplement.

a deeded interest in the gypsum that they have an absolute right to go forward with mining in the wilderness area. Further, it is assumed that the Forest Service has no authority to even restrict the type of mining which takes place. That is, that is has no authority to require subsurface mining versus open pit mining.

These assumptions, which underlie and form the basis for the limited scope of the DEIS prepared by the Forest Service need to be carefully explored. Recent case law, as well as decisions of the Interior Board of Land Appeals, would seem to indicate that gypsum may not be a patentable mineral, but that even if it is, it is within the Forest Service's authority to preclude open pit mining.

Limestone, gypsum and other minerals are not necessarily recognized as valuable and therefore not patentable. This was first recognized in the Gray Company Trust (on rehearing), 47 L.D. 18, 20 (1919) where the first secretary Vogelsagn made the following observation in finding that a claim for limestone was invalid:

> "As to the limestone deposits, the existence of which upon portions of the ground is testified to by claimant's witnesses, it is sufficient to say that they have not been demonstrated to be of such quality as to give them any substantial value over and above other limestone deposits of that region which are there shown to exist in immense quantities and more favorably situated with relation to transportation facilities, or otherwise to bring them under the category of mineral deposits subject to location under the mining laws."

47-20 More recent decisions of the IBLA have reached similar conclusions. See for example, United States v. Sherman C. Smith and Lynda K. Sellers, IBLA 89-443 (decided August 22, 1990).

Here the patenting of the so-called "mineral interest" took place back in 1926, after the IBLA's decision in Gray Canyon Trust. That decision leaves some question as to whether patenting of the gypsum in question was proffered. The Forest Service should, as part of its DEIS, do a complete legal analysis of the issue to determine whether in fact the Steeles have a proper deedable interest in the gypsum. That is crucial because if the Forest Service finds they do not, the entire scope and extent of the DEIS must be modified.

Secondly, even if the Forest Service determines that the Steele's interest in the gypsum is deedable, the Forest Service still has the right to control the type of mining that occurs. This issue arose, in a somewhat different context, in Christensen v. Chromalloy American Corp., 66 P.2d 844 (Nev 1983). That case involved whether or not the owner of the mineral interests in barite has the right to conduct open pit mining operations which interfered with the ranch land upon which it was situated. In a carefully reasoned opinion the Nevada Supreme Court examined a number of prior cases involving the rights of holders of mineral rights to conduct open pit mining. The court concluded that the owner of the mineral rights did not have the authority to destroy the surface state. Rather the court concluded that even when there has been a separate transfer of mineral rights "vest in the surface estate owner unless the mineral estate owner can remove the mineral in question by methods of extraction which will not consume, deplete or destroy the surface estate." Christensen at 847.

Here, the proposed gypsum mine would destroy a significant portion of the surface estate. Even if the Forest Service concludes that the Steeles do have the right to conduct mining operations,

the Forest Service should and does have the authority to prevent them from engaging in mining activities which destroy the surface of the property. Accordingly, the DEIS should be redone to consider the alternative of other mining methods including underground mining operations which have a much more minimal impact of the surface rights than the current proposed mining scheme.

47-20

There is also an issue whether a common mineral like gypsum, or any specific mineral for that matter, was intended to be conveyed. There is a question of the definition of the "lode" referred to in the legal documents when United States Gypsum Co. transferred title (see also Nephi Plaster & Mfg. Co. v. Juab Co., 33 Utah 114, 93 P 53 (1907) and Hartman v. Potter, 596 P.2d 653, 656 (Utah 1979)).

Forest Service Ability to Regulate, Restrict or Prohibit Development

47-21

The Forest Service regulations governing access across wilderness lands prohibit such access unless the inholding is wholly within (36 CFR 293.13) or completely surrounded (36 CFR 293.12) by Wilderness lands. Neither is the case in this situation. The DEIS treats these regulations inconsistently. It argues the proposed access, Alternative 2, can be denied based on 36 CFR 293.12 (DEIS p. II-7), but fails to recognize that Alternative 3, which allows road building on wilderness lands outside the claims, violates these regulations.

47-22

It has also been argued that federal agencies can deny access if the environmental consequences of the activity exceed its benefits. In Friends of the Earth v. Butz and Foundation for North American Wild Sheep v. United States the courts have required that EIS be prepared prior to approving mining access across public lands. Because the purpose of an EIS is to inform a decision maker prior to making a decision it follows that the decision maker has discretion to condition or deny access. (For an expanded discussion of this issue see "Public Natural Resources Law" (Chapters 10.01 and 25.04) by George C. Coggins. Clark Boardman Environmental Law Series. Clark Boardman Company, Ltd. 1990.) Importantly, how can such a determination be made until the extent of the gypsum reserves are determined.

47-23

The DEIS states the Forest Service has rights under "Common and State Law" to protect the public interest (public lands) from unreasonable, careless or negligent use of the surface (DEIS p. I-2). The DEIS does not explain or describe these common and state laws or how those rights can be exercised to prevent damage to public resources (i.e. Wilderness). Decision makers and the public need to know the extent of the agency's legal options to protect the Mt. Nebo Wilderness.

Under State Law governing reclamation the objective is "to return the land...to a stable ecological condition compatible with past, present, and probable future local land uses" (40-8-12). The past, present and future land use is as a designated Wilderness area which is not consistent with unreclaimable mining impacts. State regulations for reclamation require mine operators to "leave the on-site area in a condition which is capable of supporting the postmining land use." (R647-4-111). Again, the mine as proposed under Alternatives 2 and 3 in the DEIS is not consistent with these requirements of the state. Further, there is no indication that there is a governmental agency, state or federal, which has agreed to take on the responsibility of ensuring the area is reclaimed.

47 - 20

The agency disagrees. The legality of the proponent's mineral rights are documented in a deed and traced to the issuance of a mineral patent by the United States government. A discussion of Forest Service authority is made in response #47-1 and #47-2. The EIS has also been revised to address this comment (see Chapter I). For a response to comments on the patentability of gypsum, see response #19-2. Under the mining laws, the Federal Government would have to make a determination as to whether this gypsum deposit was of the uncommon or common variety and whether or not the mining claims containing that ore body could be patented. That determination was made and a patent was issued.

47 - 21

See response #45-3. The DEIS has been corrected to remove the discrepancy shown on page II-7.

47 - 22

The agency agrees that the decision maker has discretion to make a decision. However, the document considers the existing legal factors which guide that decision. To address this comment, the DEIS was modified (see page I-7).

47 - 23

The EIS has been changed to address these comments. Please see Chapter I. Under state law, the proponent would have to obtain a mine operation permit. Provisions set forth in this permit would require appropriate reclamation.

47 - 24

Thank you for your comments.

47-24

The DEIS failed to recognize important legal issues pertaining to Wilderness (DEIS p. IV-12). The issue of surface versus subsurface owner "rights" takes on a different meaning in wilderness areas. The Wilderness Act effectively modified the mining laws by restricting patenting to mineral resources only. The public would retain ownership of the surface in order to protect the surface and accompanying wilderness resource. The Forest Service clearly has an obligation to protect the wilderness resource where it owns the surface and the subsurface is patented. In this instance, the wilderness values of the surface estate will be destroyed if the mine is allowed as proposed in Alternatives 2 and 3. This is improper and an abrogation of the Forest Service's authority.

It is obvious that the Forest Service's interest, as the surface "owner" and manager/protecter of public resources, will be unreasonably harmed. The finding in the EIS should clearly indicate such. It is equally clear the mine will not meet existing state laws and regulations. The DEIS should be unequivocal in its showing that the public interest will be harmed and that the Forest Service is empowered by both federal and state law to prohibit the type of mining operations proposed in the DEIS. The Forest Service should also consider its options under state and federal law to enter into cooperative agreements/MOUs with the state to ensure that the state recognizes the surface owner's interests will be unreasonably harmed by the proposed mine.

Sincerely,

Gary MacFarlane
Conservation Director

cc: Gray Reynolds, Regional Forester

FILE COPY

(48)

UINTA NF

JUN 18 '92

May 20, 1992

Western Utah Mining Association
80 N. 200 W.
Delta, Utah 84625

Mr. Peter W. Karp
Forest Supervisor
Uinta National Forest
P.O. Box 1528
Provo, Utah 84603

Dear Mr. Karp:

The Western Utah Mining Association is a recently formed non-profit corporation with the purpose of providing education and communication to association members, elected officials and the public through organization of mining, industrial, energy, and agricultural interests into an association capable of interacting with other natural resource groups for the purpose of promoting multiple use of public lands.

We have completed a review of the Draft Environmental Impact Statement (DEIS) for Gardner Canyon Gypsum Mine on the Uinta National Forest Provo, Utah. We herein submit written comments on the DEIS. The operator of the proposed open pit gypsum mine has a valid right to access and develop the mineral resources. The patented mining claims (1926), inspite of their split ownership represent an outstanding private mineral right which cannot be denied. If denied without just compensation the action would represent a "taking". 48-1

The details of the claim history in the DEIS are unclear. The MacFarlane No.1 and No.4 and the Little Doctor patented claims are apparently surrounded by a block of unpatented claims (Carnotite King, Carnotite King 1 to 43). The unpatented claims are shown on a map (Appendix G, DEIS) dated 1-6-70 and clearly pre-date FLPMA (October 1976). The mining claims, particularly the patented claims should have been excluded from the Mount Nebo Wilderness Area (designated 1984). Paragraph two on page B-1 (Appendix B, DEIS) states, "Final determination of the Mount Nebo Wilderness boundary coincided with the existing National Forest boundary thus excluding the patented claims and claimed area around these claims". The "problem" apparently stems from a rash decision to expand the Mount Nebo Wilderness at the last minute. 48-2

The Wilderness Act has provisions for mining and the area of proposed activity presently contains evidence of historic mining activity. The proposed site is presently accessed by an unimproved road. Alternative B involves improving the existing road while Alternate C involves non-wilderness access along 2 miles of

48 - 1
The agency concurs that outstanding mineral rights cannot be denied. See pages II-4 and II-5.

48 - 2
The DEIS has been corrected to change excluded to included with regard to the statement on the claims and the wilderness boundary. This was an editorial error.

48 - 3
Thank you for your comments.

constructed road. Right-of-way acquisition and road construction would place economic hardships on the operator. It appears that Alternative B would result in less impact to the environment and Wilderness quality.

48-3 Since the proposed mining activity cannot and should not be denied, it is apparent that a proposal should be submitted to have Congress modify the Wilderness boundary to exclude all pre-FLPMA claims, or the mining activity should be allowed in the Wilderness area. Because of the increased environmental sensitivity we support reasonable mitigation and reclamation requirements to minimize disturbance. It would appear that Alternative B would result in less noticeable visual impact to the Wilderness and surrounding area.

Respectfully Submitted
Western Utah Mining Association
Officers and Directors

Larry Bower, President and Director

Edward F. Posey, Vice President and Director

Valerie Mason, Secretary and Director

Sid Hullinger, Director

Greg Hawkins, Director

James R. Shannon, Director

Robert A. Prescott, Jr., Director

FILE COPY

(49)

THE WILDERNESS SOCIETY

UINTA NF

JUN 19 '92

June 15, 1992

Peter Karp, Forest Supervisor
Uinta National Forest
PO Box 1428
Provo, Utah 84603

Re: Proposed Gardner Canyon Gypsum Mine DEIS

Peter Karp:

The Wilderness Society is a non-profit conservation organization dedicated to the preservation and wise management of America's public lands and natural resources. Our members, including nearly 2000 people in Utah, directly enjoy the benefits of the Uinta National Forest by consuming clear air and pure water, hiking, camping, hunting and fishing, and through less direct but certainly as important uses as maintenance of biodiversity, gene pools, watershed and soil stability, and beauty. We are particularly dedicated to the preservation of public land wilderness and in this case, the wilderness values of Mount Nebo Wilderness Area.

EXTENT OF JURISDICTION, AUTHORITY AND RESPONSIBILITY

This proposed open-pit gypsum mine lies within the boundaries of a designated wilderness area inside the Uinta National Forest. It is "split-estate" land. The Forest Service (FS) owns and has the responsibility to manage the surface of this area and is obligated to prevent undue and unnecessary damage to the surface and other portion of the forest within the context specifically of proposed mining at this site.

The FS should be commended for its recognition of the significant disturbance that would result from the proposed activity and for doing a Draft Environmental Impact Statement (DEIS).

However, the FS has failed to fully exercise its authority and responsibility to protect forest resources. Numerous conditions exist that should have been addressed in the DEIS if full authority had been incorporated. Unlike many proposed mining activities, the FS retains ownership in this surface.

ENVIRONMENTAL IMPACT STATEMENT FAILS TO ADDRESS THE FULL SCOPE OF ISSUES

49-1 The DEIS should have included a thorough analysis of a No Action alternative based on undue and unnecessary degradation to forest resources both inside and out of the wilderness area, and unnecessary risks to human health and safety. It is important to distinguish that this assertion for a No Action alternative is predicated not on whether the FS can deny a claimant the opportunity to exercise his rights under her claim, but is based on the FS's management authority and obligations.

49-2 The proposed mine, accessed from either route, would likely cuase a massive land slide. Slopes are very steep, between 30% and 60%, and soils are very unstable. The DEIS states that there is a 50% chance of mass slope failure of nearly 26,000 cubic yards of soil, mud, water, and debris. This level of certainty means that there is at least as much likelihood that there would be mass slope failure as not. The DEIS states that control measures could not stop the massive erosion generated from either the mine area or the roaded slopes associated with it. The material would not only impact the area under which lies the mining claim, but would also impact additional wilderness on the forest and private property outside the forest boundary itself: an additional 20-30 acres. The DEIS states that mass slope failure would annihilate the drainage, and that no measure of control could prevent a slope failure.

The damage that would be caused by such a massive slope failure is enormous, and would involve not only loss of land itself, but ruination of water quality, the immediate watershed itself, loss of existing water rights, all vegetation and wildlife habitat, and recreation opportunities, but it also poses great risk to human health and safety.

The DEIS failed to identify any mining activity that could occur without this risk. In addition, 51 acres of the 63-acre open pit would not be reclaimed at all posing an additional, perpetual safety hazard. These two conditions alone are risks that are too severe, and should trigger an undue and unnecessary-based prohibition. The FS should prevent such activities on public lands.

MITIGATION

49-3 The FS has failed to provide sufficient mitigation measures for water quality and wildlife. The area is critical winter range for mule deer, Rocky Mountain elk and bighorn sheep. The area is important habitat for prey base for mammals and raptors. The area is designated wilderness, and certainly, all wilderness values in the area would be irretrievably lost.

49-4 It is unacceptable that the FS relegate its mitigation,

49 - 1

The agency did consider and analyze a no action alternative. The no action alternative is predicated on NEPA interpretation of no action which is: no change from current management or the proposed project does not take place.

49 - 2

The information concerning the magnitude of a potential slope failure has been misinterpreted. See response #47-8. Regardless of this fact, we agree that such a situation would be a significant impact. This is stated in the EIS. No mining activity alternatives were developed. See response #37-7.

49 - 3

Your comment is valid. We have expanded the second mitigation measure listed under "Wildlife Habitat" on page II-6 of the DEIS to specify mitigation for damage to existing wildlife habitat.

49 - 4

The state has the authority to regulate the mining operation (see page I-12). The Forest Service will utilize the state and their permit process, as well as the agency right to negotiate reasonable surface protection, to carry out our obligations as land managers.

49-4 monitoring and reclamation authority to a state agency which is not obligated to carry out the duties of the FS.

MONITORING

49-5 The FS has inappropriately relegated its authority to monitor surface disturbing activities to the state of Utah. It states that a water quality monitoring plan would be developed, but it should be incorporated in the analysis. A full and affirmative monitoring plan for all values and plan components should be incorporated in the proposed plan analysis.

RECLAMATION

49-5 The DEIS has not incorporated sufficient reclamation standards. The authority and responsibility of the FS to protect surface values is specific and extensive in this split-estate situation. It includes not only prevention of unnecessary damage but also reclamation. A thorough reclamation plan should be part of the environmental analysis, but what was included was at best partial and unbinding. A complete reclamation plan should be subject to NEPA. The DEIS states that the reclamation plan would be "completed by the proponent and approved by the FS." This is

49-6 unacceptable and a serious violation of the agency's responsibility. The FS has reclamation responsibilities that may extend beyond those of the state of Utah, and as such should not simply adopt the state's regulations or leadership.

Specific time frames and size of areas that would receive "timely" reclamation should have been identified instead of using terms such as "as soon as possible..." or "as much as possible..." to be negotiated with the operator, or, "General overburden and material processed in mining would be replaced and graded to approximate preexisting site conditions **where feasible and reasonable** (emphasis added)." (IV-10). The DEIS should be

49-5 thorough enough to specify "grade" so that both the public and the operator know what to expect and can have a factual measure to review.

49-7 The DEIS did state that no attempt would be made to reclaim 51 acres of the 63-acres open pit mine, and that for areas outside of the mine site itself, reclamation would take 20-50 years at least (IV-8). This is unacceptable.

49-8 The DEIS made no attempt to consider reclamation from mass slope failure, yet is likely to occur. What should happen when such a land slide occurs? Should the public simply pick up the bill to mitigation/reclaim lost resources? What is possible to do? Failure to incorporate a full analysis of the probable land side is a serious failure of the analysis and is unacceptable.

BONDING

49-9 The FS should have specified the bond that would be

49 - 5
See response #37-3. Until such time as the proponent's operating plan is submitted, a monitoring plan for all values cannot be incorporated into the analysis.

49 - 6
See response #49-4.

49 - 7
The analysis in the DEIS was based on a worst case scenario (see response #37-7). The DEIS has been rewritten to address the concern of worst case impacts. The time frame of 20-50 years is based on the completion of full recovery of the vegetation. This time frame would fit the definition of reclamation and objectives described in the supplement, page I-6.

49 - 8
The landslide prediction is based on a worst case scenario. Until the actual mine plan is presented, it is impossible to predict impacts and prescribe appropriate mitigation measures. This comment on inadequate information and how it affects the analysis has been addressed in several response to comments and in the EIS. The agency would incorporate reclamation for mass slope failure in the reclamation plan for a specific mining operation proposal. The type of mitigation measures would vary with the risk potential generated by the proposal. The DEIS has been revised to require surface revegetation measures on landslide surfaces. Also see our response to comment #47-12.

49-9 required. The amount should be sufficient to reclaim the surface to somewhat pre-existing conditions even of a land slide occurs. It is clear the federal statues allow the FS to require sufficient bonding, but that requirement is missing in the analysis.

WATER AND RIPARIAN RESOURCES

Although the riparian zone and the live stream in the area are relatively small in actual size and flow, they represent a majority of this specific resource in the vicinity, and as such are extremely important. There is no live stream in the canyons to the north or south. This riparian area is critical to all obligate species in the vicinity. If surface water and riparian resources are lost or severely damaged, it would represent a significant loss to the area's wildlife. The water quality and production under current water rights would be in great jeopardy as well if this proposal is permitted.

49-10 Although the DEIS states there are no planned activities within the wetland in some places, it also says that 1.3 acres of the flood plain would be "disturbed by access road construction and development of a work area." under one alternative. Loading machinery, trucks for hauling and general staging of the mine activities would occur in the riparian zone and flood plain - a wetland. Gypsum would be blasted off the slopes and roll down to the creek bottom for collection. The bottom of the canyon at the mine site is between 20' and 50'. The likelihood that large amounts of gypsum will reach the riparian area is very high, and certainly the intent of the plan. These activities clearly would cause direct and extreme soil compaction, contamination of the riparian area by gypsum, and unacceptably raise the risk of chemical contamination from equipment operating in the wetland.

49-11 The DEIS states in one place that "The project would not cause toxic runoff since no chemicals are proposed for the operation." It also states that petroleum products and chemicals would be stored on the sites and that a hazardous material contingency plan would need to be prepared. Which is it? If hazardous materials would be stored on site, then the contingency plan must be part of the analysis.

ROAD CONSTRUCTION AND EQUIPMENT

49-12 The DEIS failed to be specific about how many or what size of trucks would be needed. It states that either D-7 or D-8 cats, loaders, and several single or double dump trucks would be needed. The size of roads, design of roads and staging areas, and service needs would vary depending upon the number and size of equipment utilized. It is impossible to determine what the impacts might be if the equipment that would be used is not specified.

49-13 Equipment servicing of all types should be located off the forest and not in the wilderness area as now planned. There

49 - 9
The reclamation surety bond would be based on the scope of the surface impacts. Until such scope is determined, the bond amount cannot be set. The bond amount will vary with the amount of development. Bonding requirements are identified in the analysis (see page II-5).

49 - 10
We agree. There is no question that the canyon bottom below the upper end of the existing road in Gardner Canyon is a floodplain and has potential to be a riparian zone, although the values of the latter have been greatly reduced by the diversion of the stream into the irrigation company's pipeline. This pipeline was originally built in the late 1800's and the canyon bottom below the existing diversion would not have exhibited wetland properties since soon after the stream was diverted. The area does not meet the definition of a wetland below this point. Nevertheless, we too are concerned about the possibility that mined material will reach the canyon bottom as a result of mining operations. See our response to comments #21-2, #47-11, and #47-12.

49 - 11
The current mining proposal and road construction request does not include the use of toxic chemicals. The Forest Service would require a hazardous material contingency plan regardless. For the submitted proposal, the plan would state that no hazardous materials are proposed. If, however, the mining operation changes to utilize hazardous materials, the contingency plan would have to be modified.

49 - 12
See response #47-8.

49 - 13
Thank you for your comment.

49-13 should be no storage of equipment or supplies on the claim or elsewhere on the forest.

The DEIS states in one instance that only the development of access roads would be allowed outside the claim blocks but elsewhere it states that some of these roads "would have to be located outside of the pit area in order to provide for suitable grades on which to haul the material." Does this mean outside the pit but inside the claim area? Which is it? The DEIS states that roads would be limited to 12 feet in width, however the DEIS
49-14 also states that "drainage" needs would be required "along the proposed road locations" but provided no guidelines. The disturbance from these roads and drainage needs could be significantly greater than 12' and the absence of a complete description and analysis in the DEIS is unacceptable.

The DEIS did not address turn outs at all. Does this mean there would be none? Would the equipment only turn around at the loading area? Would the roads be used in one direction only at a time?

STOCKPILING

The stock piling of overburden and topsoil should not occur on forest land outside the claim certainly and very likely not on the claim itself, but should be located off the forest entirely. Since the proposed activity could last for as long as thirty
49-15 years, these materials would pose an unnecessary additional erosion problem if left on the forest that could not be mitigated by seasonal closure. The DEIS was unclear about the location, preservation of, and impacts from stockpiled materials.

ALTERNATIVES B AND C

The probable production rate of the mine is quite small. There exists a great variance between the proponents estimates and those of the USGS. The proposed activity would not create a meaningful economic contribution to the local economy nor would
49-16 it provide an important resource for the society as a whole. The risks under both alternatives are severe. The costs to society from development of this claim are fare higher than any benefits that would be accrued especially with regard to inadequate bonding, inadequate mitigation, lack of full reclamation and loss of resources.

Alternative C would impact the Mt. Nebo Wilderness Area by
49-17 fewer acres and would be preferable to Alternative B. However, until Alternative A is fully developed, the range of alternatives is incomplete.

49-18 In summary, the impacts from this proposed mining activity pose extreme risks to the environment and to human health and

49 - 14
The DEIS has been changed to incorporate your comments. The proposed road is a twelve foot road with turnouts. Only the construction of access roads would be permitted beyond the bounds of said lands which are encompassed by the outstanding mineral rights.

49 - 15
Thank you for your comments. At this time, the need for stockpiling material is not known so it is not specifically mentioned. Again, the only disturbance to be permitted outside the area encompassed by said lands would be access roads. If a suitable location for stockpiling material is not available within said lands, that material will have to be located off of National Forest System lands.

49 - 16
See response #37-2 and response #47-5.

49 - 17
See response #37-3.

49 - 18
Thank you for your comments.

49 - 18

safety. The No Action alternative should be fully analyzed. Mitigation, monitoring and reclamation should be fully incorporated into the FS analysis. Many substantive inconsistencies should be reconciled. Until these failures are corrected, the EIS should be considered incomplete. A revised EIS should be developed.

Sincerely,

Jane Leeson

Jane Leeson, Utah
Representative

FILE COPY UINTA NF

JUN 15 '92 (50)

June 15, 1992

Mr. Peter Karp
Uinta National Forest Supervisor
P. O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

Please be aware of the fact that many people are concerned about the possible development of a gypsum strip mine in the Mt. Nebo Wilderness area.

With more and more development of private lands and less and less open space, I find it incomprehensible that we would allow any wilderness area to be rendered unreclaimable, let alone 51 acres (EIS draft). 50-1

Please consider reissuing the draft EIS to include a more complete range of alternatives, perhaps a trade or buyout.

We would appreciate any assistance you could give us in this matter.

Respectfully,

Lorie Leyton
2321 Marsington
Park City, Ut.
84060

50 - 1
See section #1 response and response #8 - 1.

FILE COPY

UINTA NATIONAL FOREST

JUN 22 1992 (51)

UINTA NF

JUN 22 '92

June 15, 1992

Mr. Peter Karp
Uinta National Forest Supervisor
P. O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

Please be aware of the fact that many people are concerned about the possible development of a gypsum strip mine in the Mt. Nebo Wilderness area.

With more and more development of private lands and less and less open space, I find it incomprehensible that we would allow any wilderness area to be rendered unreclaimable, let alone 51 acres (EIS draft). 51-1

Please consider reissuing the draft EIS to include a more complete range of alternatives, perhaps a trade or buyout.

We would appreciate any assistance you could give us in this matter.

Respectfully,

51 - 1
See section #1 response and response #8 - 1.

FILE COPY
UINTA NATIONAL FOREST
JUN 22 1992

UINTA NF
JUN 22 '92 (52)

OFFICE OF PLANNING AND BUDGET
Resource Development Coordinating Committee

Charles E. Johnson, CPA
Office Director
Brad T. Barber
Office Deputy Director
Rod D. Miller
Committee Chairman
John A. Harja
Executive Director

116 State Capitol
Salt Lake City, Utah 84114
(801) 538 1027

June 18, 1992

Peter W. Karp, Forest Supervisor
Uinta National Forest
P.O. Box 1428
88 West 100 North
Provo, UT 84601

SUBJECT: DEIS - Gardner Canyon Gypsum Mine Proposal
State Identifier Number: UT920324-020

Dear Mr. Karp:

The Resource Development Coordinating Committee, representing the State of Utah, has reviewed this Draft Environmental Impact Statement. The Division of Oil, Gas, and Mining comments:

The Division of Oil, Gas, and Mining has no formal comment on the DEIS. Should the operator submit a Notice of Intent to commence large mining operations, we will perform a comprehensive technical review of the proposal. To date, we have only received and processed a Small Mining Notice of Intent for this site. Appendix A of the DEIS does contain a proposed Plan of Operations, submitted by the operator. In its present form, this plan is not complete and is inadequate for our review purposes. The plan would require further refinement/development, significant supplemental information, and resubmission according to State statutory & regulatory requirements before the Division could consider approval. Under Utah law, the operator will have to provide strong justification in order to be granted variance(s) for any disturbed area(s) of the mine site to be left unreclaimed. 52-1

The Division of Oil, Gas, and Mining appreciates your cooperation and interest in maintaining the sound working relationship between our respective agencies. We look forward to working with you on this and other projects in the future. Please contact Dianne R. Nielson, D. Wayne Hedberg, or Holland Shepherd of the DOGM if we can be of further assistance in this regard.

52 - 1
See response #44-1 and #44-2.

52 - 2
See response #3-1, #3-2, and #3-3.

The Division of Wildlife Resources comments:

Page II-6 - Alternative C, nonwilderness access

This alternative would require a right-of-way across one of the Division-owned parcels that makes up the North Nebo Wildlife Management Area. The proposed access road would cross Division land in the N1/2 NE1/4 of Section 27, Township 12 South, Range 1 East. This parcel was purchased from the BLM with funds from the Federal Aid to Wildlife Restoration program, and was acquired for the benefit of wildlife. Road construction would not be a compatible use. The Division of Wildlife Resources does not view this alternative as a viable option.

Page III-4 - Wildlife

Sage grouse are listed as a common species, and one of the management indicator species for the area. The nearest known strutting ground is west of Fountain Green. Although birds may have used this area in the past, their population distribution is not known to extend into the Salt Creek drainage. A golden eagle nest site is located north of Gardner Canyon in the mouth of Birch Creek and another site is located to the south in Quaking Asp Canyon. These sites are just over a mile from the mine site. 52-2

Page IV-14

Wildlife Resources disagrees with the finding that the project will not have a significant impact on wildlife. The Division considers all high priority value mule deer winter range habitat as intensive use area for mule deer. Intensive use areas (as differentiated from sensitive use areas) are areas that are not limited; if disturbed, they usually require restoration to retain their value for wintering mule deer. However, in this case, it is estimated that 50 acres will not be reclaimable. The owner/operator should be held responsible for improvement of the habitat value of at least 50 off-site acres to compensate for values lost at the mine site. We recommend that the Spanish Fork Ranger District identify a mitigation site on high priority value or critical value mule deer habitat in the vicinity of Gardner Canyon that currently provides minimal habitat for wintering deer. The site must be capable of supporting a stand of transplanted sagebrush. Shrubs should be transplanted at the rate of at least 400 per acre and the owner/operator should be required to hire trained personnel to plant the seedlings. We recommend the use of the State Prison Flame-In-Goes.

Cost Estimate

20,000 sagebrush seedlings	@ $.35	-	$7,000
20 person crew (5 days)	@$800	-	$4,000
	Total	-	$11,000

Another option would be to purchase 50 acres adjoining the Uinta National Forest that would lead to the future protection of additional deer winter range. If there are any questions on these comments, contact John Fairchild in the Division's Central Region at 489-5678.

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Utah State Clearinghouse at the above address, or call Carolyn Wright at (801) 538-1535 or John Harja at (801) 538-1559.

Sincerely,

Brad T. Barber
State Planning Coordinator

BTB/rpj

FILE COPY

UINTA NATIONAL FOREST

JUN 2[illegible] 1992 (53)

UINTA NF

JUN 22 '92

June 15, 1992

Mr. Peter Karp
Uinta National Forest Supervisor
P. O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

Please be aware of the fact that many people are concerned about the possible development of a gypsum strip mine in the Mt. Nebo Wilderness area.

With more and more development of private lands and less and less open space, I find it incomprehensible that we would allow any wilderness area to be rendered unreclaimable, let alone 51 acres (EIS draft). 53-1

Please consider reissuing the draft EIS to include a more complete range of alternatives, perhaps a trade or buyout.

We would appreciate any assistance you could give us in this matter.

Respectfully,

Evelyn M. Richards
1251 Little Kate Rd
POB 1355
Park City, Utah 84060

53 - 1
See section #1 response and response #8-1.

54

United States Department of the Interior

OFFICE OF THE SECRETARY
OFFICE OF ENVIRONMENTAL AFFAIRS
DENVER FEDERAL CENTER, BUILDING 56, ROOM 1018
P.O. BOX 25007 (D-108)
DENVER, COLORADO 80225-0007

June 23, 1992

ER 92/238

UINTA NATIONAL FOREST
JUN 25 1992

Mr. Peter W. Karp
Forest Supervisor
Uinta National Forest
Provo, Utah 84603

Dear Mr. Karp:

The Department of the Interior has reviewed the draft Environmental Impact Statement for the Gardner Canyon Gypsum Mine Proposal, Uinta National Forest, Juab County, Utah.

It appears that impacts on renewable and cultural resources are adequately addressed. Mineral resources other than gypsum are not known to occur in the project area. That fact, along with the wilderness setting of the proposed mine, probably precludes significant impacts to development of other mineral resources. 54-1

It should be noted that there is a typographical error on page II-4, where the name "Korzele" should be corrected to "Korzeb".

Sincerely,

Robert F. Stewart

Robert F. Stewart
Regional Environmental Officer

54 - 1
Your comment has been incorporated into the DEIS.

FILE COPY UINTA NATIONAL FOREST

JUN 28 1992 (55)

UINTA NF

JUN 23 '92

Comments on the DEIS for Gardner Canyon Gypsum Mi

Section 22 township 13-6 Range 1 East Salt Lake Mer.

ALTERNATIVES CONSIDERED IN DETAIL

1- Alternative A: No action

Alternative A has been implemented.

2- Alternative B: Proposed plan of operation

Alternative B is the only plan that is economically feasible and should be approved by the Forest Service immediately as to stop the Economic hardship on the owners.

3- Alternative C: None Wilderness Access

Alternative C was not studied in full detail by the forest Service. Roads would be highly visible from as far as 20 miles on state highway 28 and Interstate 15. Road cuts would be in solid rock in some places and would have to be wider than the road down gardner canyon for safety. the road would also cross Red Canyon, a water source for Nrphi City. It would also destroy many acres of winter range for deer and elk. The road to be made safe for large trucks would be much wider and longer than the two miles estimated and it would cost close to $100,000 to construct. 55-1

Wildlife and Fisheries: Page III-4

I. Wildlife

The project area is not a critical key winter range of big game wildlife.

A. The elevation is 6,000 to 7,000 feet. Well above the key winter grazing range for the large game wildlife.

B. The property is on the north slope of the hill and is covered with large amounts of snow in the winter time.

C. With the W.D.R. present policy their will never be a need for a key winter range for big game.

55-1
See response to comments #27-1 through #27-17.

55-2
The agency is mandated by law to complete an environmental analysis for major federal actions. Prior to making a decision on the access request submitted by the proponent, the agency is required to meet the intent of the National Environmental Policy Act (NEPA).

II. Sage Grouse

There are no sage grouse currently on Mount Nebo nor have there ever been in my lifetime.

III. Mammals

Big horn sheep- There are no known big horn sheep in Gardner Canyon.

Vegetation Resources: Page III-5

There are no Pinyon Trees and only six Juniper Trees on the established claims. The main vegetation on the claims are Mountain Mahogany, Scrub Oak and Black Leaf Mahogany.

Social Economics: Page III-6

The economy of Juab County is based on service, agricultural industries and mining.
(The mining industry is the highest paying job in the county.)

Wilderness: Page III-7

The wilderness act of 1964 as designated by congress:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man, himself, is a visitor who does not remain. An area of wilderness is further defined to mean an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) Generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has a least 5,000 acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and

55-1

(4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

The lands below the 7,000 foot level on Nebo do not meet this act.

Water Quality: Page II-5

The point of Division for Gardner Canyon is approximately 400 yds. North East of mine site but was washed out in 1983, but it is still the point of division.

Wildlife Habitat Page II-6

The mining activity can be engaged all year long and not effect the big game.

Roads:

Dust suppressant will be applied when necessary. The type of dust suppressant used will not be mandated by the Forest Service.

55-1

Reclamation: Page II-6

It is not necessary to have seasonal shutdowns for reclamation.

Economics: Page IV-11

There has not been any study on the economic hardship that has been initiated on the owners and the lessor of the property. Lost contracts, more cost for royalty, taxes and legal fees.

Local Economy: Page IV-15

The Forest Service has cost Juab County the loss of thousands of dollars in lost employment, revenue and

55-1 taxes. This is a county considered by government studies as economically depressed.

Alternatives Including the Proposed Action

Introduction: Chapter II Page II-1

55-2 The Forest Service purchased said property subject to the right to mine Gypsum. Therefore, the Forest Service has not complied with the agreement signed on the property deed. This has cost Mr. Steele and Mr. Dansie hundreds of thousands of dollars in lost revenue opportunities from being forced out of a gypsum mine when the deed specifically allowed mining of this property.

Summary and Conclusion:

Page S-1 Proposed need for action:

After reviewing the DEIS, their is and was no need for action by the Forest Service.

Page S-1 Public Issues, Management Concerns, and Opportunities:

The concern for Public Law 98-428 overrode the priority rights of the proponents rights under the 1872 mining laws.

Page S-2 Alternatives, Including the Proposed Action:

1- Alternatives eliminated from detailed study are federal acquisition of Mineral Estate because of the Forest Service, not Mr. Steele. Mr. Steele offered to sale or trade the property for the fair market value, based on an independent appraisal.

Lessor of said property:

J.W. Dansie

J.W. Dansie

(56)

Dec 8, 1992

Mr. Peter Karp,

I urge you to revise the Draft EIS so that it offers a larger range of alternatives with regard to the Mt. Naba Wilderness. It should include provisions for a buy out of subsurface rights & the impact of gas pipeline mining in wilderness land & water quality. Furthermore, the statement should require total reclamation of land & water, the impact of which should be borne 100% by developers.

56-1

Thank you for your consideration of my comment.

Cordially,

Walter H. Wojtowicz

WALTER WOJTOWICZ
4720 S HARDING AVE
CHICAGO, IL 60632

UINTA NATIONAL FOREST
DEC 14 1992

(56)

56 - 1
See Section #1 response and #8-1 response

57

Dear Sir,

I am concerned about the [illegible] pertaining [illegible] wilderness. I [illegible] the FS [illegible] Draft EIS [illegible] a more complete range of alternatives and [illegible] the [illegible] responsibility to protect [illegible] lands and resources. I insist that the EIS consider a [illegible] alternative, more carefully analyze the legal responsibilities of protecting the wilderness, and more carefully analyze the impacts to [illegible] resources, wildlife, sensitive species and the wilderness.

Sincerely,
David Peterwade

57-1

D Peterwade
PO 550
Prineville, OR

DEC 10 PM 1992

USA 19

Forest Supervisor Peter Karp
Uinta National Forest
POB 1428
Provo, UT 84603

UINTA NATIONAL FOREST
DEC 14 1992

© USPS 1991

57 - 1
See Section #1 response and #8-1 response

Utah Wilderness Association

455 East 400 South #205/Salt Lake City, UT 84111/(801)359-1337

UINTA NATIONAL FOREST

September 29, 1994 1994

Peter Karp
Forest Supervisor
Uinta National Forest
88 West 100 North
P.O. Box 1428
Provo, UT 84603

RE: Gardner Canyon Gypsum Mine Proposal: Supplement to the DEIS

Dear Peter:

Yesterday marked the 10th Anniversary of the Utah Wilderness Act and the declaration of the United States Congress to protect in perpetuity the naturalness of the Mt. Nebo Wilderness. Sadly, here we are commenting on a proposed open pit mine that will forever change the character of a piece of that Wilderness! It isn't supposed to be that way. This issue has and will continue to test the Forest Service's desire and ability to preserve and protect a legacy of Wilderness.

We submitted a lengthy comment (dated June 15, 1992) on the draft EIS, and by reference include that comment on the Supplemental EIS. We continue to believe those comments as they relate to the adequacy of the analysis of environmental impacts, mineral holdings, and the Forest Service's ability to regulate, restrict or prohibit development are still sound. For the most part, we are confining these comments to new issues and information presented in the SDEIS, though there will obviously be some overlap.

We continue to be concerned with the cumulative effects analysis, particularly if at some future time the claims surrounding the "subject lands" are mined. The SDEIS is confusing on this point. While it states the claimant's failure to file his 1992 assessment has rendered the claims null and void, it implies there could be future mining proposals (IV-20). If the previous claims are null and void, there can be no future claims or mining. On the other hand, if there remains the possibility that the claims are valid, then a *cumulative effects* and *connected actions* analysis based on the possibility of future mining should have been part of the DEIS. 58-1

Section 5(b) of the Wilderness Act authorizes the Secretary of Agriculture to grant access across a Wilderness Area if valid mining claims or other valid occupancies are *"wholly within"* the wilderness. According to Webster, "wholly" is defined as "to the full or entire extent completely; to the exclusion of other things". There is no factual dispute that Mr. Steele's claims are <u>not</u> wholly within the Wilderness, thus the Forest Service can not allow the claimant access across the Wilderness (Alternative 2--Gardner Canyon access). We are confused by and deeply suspicious of the discussion on page I-10 of the SDEIS that erroneously proclaims that the definition of *wholly within* "is open to interpretation". 58-2

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<u>58-1</u>
We agree. The FEIS has been changed to address this concern. See page IV-20.

<u>58-2</u>
We agree that the mineral estate is not wholly within the Mount Nebo Wilderness. We disagree with the Statement "---the Forest Service cannot allow the claimant access across the wilderness." The Wilderness Act states that where a valid occupancy is wholly within, the Secretary of Agriculture shall permit ingress and egress. The Act does not state that ingress and egress shall not be permitted if a valid occupancy is not wholly within wilderness. The discussion of page I-10 has been reworded to clarify the interpretation of "wholly within" and the Act based on the circumstances associated with this situation.

Assuming that the claims are valid and the Forest Service can't prohibit mining (obviously we disagree on both counts), Alternative 3 "non-wilderness access", is the only defensible decision for the agency to make. We appreciate and share the Division of Wildlife Resources' concern that the new road will impact big game winter range, however, it is inappropriate to suggest that an illegal alternative is a better solution. Further, loss of big game winter range is more easily mitigated than is the irreversible loss of Wilderness. If Mr. Steele chooses to cross UDWR lands to access his claims, UDWR has the legal right to require appropriate mitigation for any impacts the access will cause wildlife. 58-3

We do not believe the Forest Service is required to issue a SUP for access if the applicant is unwilling to agree to stipulations that protect the wilderness outside the claim block. Thus, any SUP granting access should be subject to Mr. Steele's agreeing to all of the agency mitigation proposals, particularly those limiting headwall height and other measures that assure any subsidence or slope failure will not directly or indirectly affect Wilderness lands outside the 57 acres of Wilderness claims. 58-4

We support the requirement for performance bonding to assure hydrologic and soil resources are protected, however, bonding should be required to ensure that all resource and public values are protected including wildlife habitat rehabilitation, visual quality restoration, native vegetation reestablishment, and returning the land to its "past, present and probable future land use (a.k.a. Wilderness)" as required by State law (Utah Code 40-8-12). 58-5

The SDEIS failed to include mitigation measures for impacts to Wilderness. The Gardner Canyon mine will directly and indirectly affect the experience of wilderness users over thousands of acres. Wildlife will also be displaced due to increased human activity. There are other identifiable instances where activities outside the Mt. Nebo Wilderness impact wilderness values. Off-site mitigation that reduces these impacts in other areas of the Wilderness could partially offset the impacts from the Gardner Canyon mine. For example, the Pole Canyon "road" dissects and fragments the Mt. Nebo Wilderness, which has a direct impact on wilderness inhabitants and wilderness visitors. The impacts of the Gardner Canyon mine and access road to the Mt. Nebo Wilderness could be partially mitigated if the Forest Service were to close the Pole Canyon road. Further mitigation could require the claimant to acquire private land around the Privateer Mine and deed that land to the Forest Service to replace the wildland values destroyed in Gardner Canyon. It is more than ironic that *Wilderness* is the only "resource" for which the SDEIS does not propose or require mitigation! 58-6

We sincerely appreciate the Forest Service's efforts, and particularly those of District Ranger Tom Tidwell, to pursue a non-mining solution to this issue. We strongly urge you to continue to seek an exchange or purchase. If those efforts aren't productive, we hope the Forest Service will use all legal means available to prevent this Wilderness destroying proposal. Finally, we appreciate the opportunity to provide our comments on this updated Supplement to the DEIS.

Sincerely,

George Nickas

George Nickas
Assistant Coordinator

58 - 3
Thank you for your comments.

58 - 4
This concern in addressed on page II-6. The FEIS states: "A special use permit would not be issued until the appropriate permits for mining have been secured from the state." The "appropriate permits" would have stipulations that protect wilderness, both within and outside the mineral estate. This woud include stipulations on head-wall height.

58 - 5
We agree that a bond should be required to assure that all resources are protected. On page II-5 of the FEIS it states: "the operation would be permitted by the State of Utah--as set forth in the State of Utah Mineral Land Reclamation Act---. This would include a reclamation plan and a reclamation surety." The reclamation plan and bond as described in the Act, cover all resources.

58 - 6
We disagree with your comment that the SDEIS failed to include mitigation measures for impacts to wilderness. Wilderness is a resource unto itself, but it is also a composite of various other resources. Mitigation requirements for those other resources have a direct bearing on the wilderness values (see page IV-15). Page II-8 of FEIS has been changed to address this comment.
We agree the SDEIS does not contain off-site mitigation to reduce impacts in other areas of the wilderness. Surface protection measures and mitigation requirements must be reasonable. The interdisciplinary team considered reasonableness in the process of preparing this document and developing mitigation measures. Off-site mitigation measures to reduce impacts in other areas of the wilderness were deemed unreasonable.

ROBERT L. STEELE
MAYOR

KELLY T. ANDERSON
COUNCILMAN

CHAD L. BROWN
COUNCILMAN

MILTON T. HARMON
COUNCILMAN

JENS C. NICHELSON
COUNCILMAN

RICHARD T. PARMAN
COUNCILMAN

MT. NEBO — ELEVATION 11,877 FT.

Nephi City Corporation

51 EAST FIRST NORTH
NEPHI, UTAH 84648
PHONE (801) 623-0822

J. RANDY MCKNIGHT
CITY ADMINISTRATOR

J. CORINNE GARRETT
CITY RECORDER

LINDA LOU WILSON
CITY TREASURER

DONALD J. EYRE, JR.
CITY ATTORNEY

PEGGY A. MCNAMOTT
JUSTICE COURT JUDGE

R. BLAIR PARRISH
FINANCE DIRECTOR

September 29, 1994

Peter W. Karp
Forest Supervisor
Uinta National Forest
88 West 100 North
P.O. Box 1428
Provo, Utah 84603

Dear Mr. Karp,

Please accept this letter as a written comment from Nephi City on the Supplement to the Draft Environmental Impact Statement for the Gardner Canyon Gypsum Mine.

After reviewing the Supplement, the Nephi City Council desires to express concern about alternative C and recommends that alternative C not be adopted or given further consideration.

A road constructed as outlined in alternative C would be highly visible from the community of Nephi. The amount of acres initially disturbed under alternative C would be 70% greater than under alternative B. An additional drainage (Red Canyon) would be impacted under alternative C. Red Canyon contains a spring owned by Nephi City and a water transmission line, both of which would be impacted by the proposed road in alternative C. 59-1

The Nephi City Council opposes alternative C and asks that you not approve or continue to consider it. Please contact me if any additional information is needed.

Sincerely,

Milton T. Harmon
Mayor Pro-Tem

59-1
Thank you for your comments. The concerns you identify are addressed in the document (see page IV-6).

Sept. 30. 1994

To whom it may concern.

After reading the EIS on the Gardner Canyon Gypsum Mine Proposal, I enter a protest against alternative C page S-4. The proposed road going south from the mine would at some point have to cross my property. I do not want this road to cross over any of my property. 60-1

George R. Jackson

60-1
Thank you for your comment.

DOCUMENTS DEPARTMENT - KS
THE LIBRARIES
COLORADO STATE UNIVERSITY
FORT COLLINS, CO 80523-1019
(303) 491-1879
FAX (303) 491-1195

October 4, 1994

Mark Sensibaugh
U.S. Forest Service
Uinta National Forest
88 W. 100 N.
Provo, UT 84601

Dear Mr. Sensibaugh:

If available, please send us one copy of the following document. The citation for it is listed in the August 5, 1994 Federal Register. (We have the citation. Please send the document).

61-1

Draft Supplement Environmental Impact Statement Gardner Canyon Gypsum Open Pit Mine, Development and Operation, Updated Information.

including all supporting appendices and documents.

Please inform us, before sending, if there is a charge, or if you cannot supply. Please return a copy of this letter with your reply.

Thank you.

Fred C. Schmidt /heb

Fred C. Schmidt
Head, Documents Dept.

FCS/kls

S.O. sent the document
10/14/94
MKS

61-1
The documents you requested were sent to you on 10/14/94.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

OCT 21 1994

OCT 4 1994

Ref: 8WM-EA

Peter W. Karp, Forest Supervisor
Uinta National Forest
88 West 100 North
PO Box 1428
Provo, Utah 84603

Re: Supplement to the Draft Environmental Impact Statement (SDEIS) for Gardner Canyon Gypsum Mine

Dear Mr. Karp,

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region VIII office of the Environmental Protection Agency (EPA) has reviewed the SDEIS for the above referenced project and offers the following concerns and comments for your consideration as you complete the final Environmental Impact Statement (FEIS). Thank you for your responses to our letter of June 4, 1992 addressing our comments about the initial Draft EIS.

Our primary concern related to the existing document is that it appears that the Forest Service could take a more active role in deciding how the open pit mining operation should be conducted and how the surface estate should be restored. We continue to be concerned about the environmental effects, in particular - water quality - of accessing and mining a relatively common resource such as gypsum on unstable slopes. The long time frames anticipated for both mining and rehabilitation exacerbate these concerns. We also have concerns about the miner completing and maintaining rehabilitation measures on a continuing basis as well as prior to seasonal shutdown and any unscheduled suspension of operations. These issues should be considered in the FEIS to minimize adverse impacts. 62-1

Based on the procedures EPA uses to evaluate the environmental impacts of the proposed action and alternatives and the adequacy of the information in the SDEIS, the Supplement to the Draft Environmental Impact Statement for the Gardner Canyon Gypsum Mine Proposal will be listed in the Federal Register in category EC-2. This means that the review has identified environmental impacts that should be avoided in order to fully protect the environment and that the SDEIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment.

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62-1
Your concerns have been incorporated into the document, see page I-2 of the FEIS.

Enclosed are the more detailed comments on the assessment which the issued category was based upon and which are a part of our review. They should, therefore, be incorporated into your final document. Please contact Larry Lindner (303/293-1695) of my staff if you have any questions about these comments.

Sincerely,

J. William Geise, Jr.

J. William Geise, Jr.
Acting Chief
Environmental Assessment Branch
Water Management Division

Enclosures (2)

Detailed comments by
Region VIII of the Environmental Protection Agency
on the
Supplement to the Draft EIS
Gardner Canyon Gypsum Mine Proposal

I. AUTHORITIES

Our primary concern related to the current proposal as described in the SDEIS is related to the perceived lack of control the Forest Service can exert, due to the split estate, over the anticipated adverse effects to surface resources. According to the SDEIS, the proponent's proposal to develop an open pit mine on the steep slope will result in an approximate 50 acres not being reclaimable and there is strong likelihood that the mining operation will cause an additional 20 - 30 acres of disturbance due to the potential for mass failure events (Page IV-10). The mining operation is currently anticipated to continue for 20 - 30 years (Page IV-2) and "It would also take 20 -25 years beyond the end of the operation for the vegetation to be fully reestablished in disturbed areas" (Page IV-10). These impacts are not conducive to maintaining the Wilderness character of the Congressionally designated areal land use. 62-2

There appear to be many similarities between this situation and those discussed in Christensen v. Chromalloy American Corp., (99 Nev. 34, 656 P.2d 844 (1983). In that case, the owner of the mineral estate claimed the right to unlimited use of the surface estate to extract barite. The Supreme Court of Nevada reversed and remanded the case to the District Court with instructions to grant appellants' motion for a preliminary injunction in part because ".... appellants are suffering irreparable harm to their surface estate as a result of respondent's open-pit mining operations." 62-3

The Court used several other cases as precedent to make its decision in this case. Some applicable portions of the court's opinion include:

> ".....surface minerals which were subject to extraction by open-pit mining belonged to the surface estate owner and not the lessee....a grant or reservation of "minerals" or "mineral rights" should not be construed to include a substance that must be removed by methods that will, in effect, consume or deplete the surface estate."

62 - 2
As stated in response 5-1, the concern of the Forest Service regulatory authority has been addressed on page I-2. We agree that the impacts you reference are not conducive to maintaining the Wilderness character. The complexities of the circumstances associated with this case and the unavailable and incomplete information make it necessary to include these statements. A discussion of the complexity is put forth on pages I-2, IV-1 and IV-20 of the FEIS.

62 - 3
Thank you for your comments. It is our interpretation that case law may have bearing on interpellating the circumstances associated with this situation, but the unique facts associated with this case need to be reviewed separately. Also this action is affected by Utah State Law, so case law outside of Utah needs to be reviewed accordingly. Because of the complexity of interpreting and applying case law the reference of Duncan Energy vs. Forest Service has been removed from page I-2 in the FEIS.

" ....title to surface or subsurface minerals vests in the surface estate owner unless the mineral estate owner can remove the minerals in question by methods of extraction which will not consume, deplete or destroy the surface estate."

In the case of Duncan Energy vs. Forest Service, which is cited on I-2 of the document, a lessee to the subsurface mineral owner constructed a road and started to drill an oil well without express permission from the surface owner. Contrary to Christensen vs. Chromalloy Corp., this case concerns access to minerals at depth rather than surface minerals. However, even in this case, access to the subsurface estate carries the burden of just compensation for damages ("....2. The owner of the mineral estate has the right in development, mining and extraction of the underlying minerals to interfere with or even destroy the usage of the subservient surface estate, but may be held to respond in damages for any interference with or destruction of the surface estate.")

It therefore appears to us that the Forest Service has more ability to negotiate directly with the proponent on operating plans and mitigation measures than is portrayed within the SDEIS. 62-4

II. ROAD REHABILITATION

With respect to the Special Use Permit for the roads, the Forest Service has permissive authority, within those requirements imposed by the Alaska National Interest Lands Conservation Act (ANILCA), as described in the SDEIS. Although the subject parcel overlaps the Wilderness and National Forest boundaries, and is therefore not "wholly within" the wilderness or National Forest, EPA Region VIII believes the decision should be based on minimizing long term environmental impacts.

The proponent's preferred access is through designated wilderness on an existing, abandoned route. If this access is approved, we feel it would be reasonable to incorporate requirements for mitigation and rehabilitation practices suitable for returning the land in a condition in which it can resume its wilderness character. This would likely include practices such as replacing the fill into the cut, saving and replacing topsoil, use of native species for revegetation and continuing monitoring and rehabilitation efforts until they are successful. 62-5

The other alternative being analyzed lies outside Wilderness, it would entail new construction in what appears to be steeper terrain. The FEIS should compare the long

62 - 4
See response 5-1.

62 - 5
Thank you for your comments. Your comment on analyzing costs and effectiveness of required mitigation practices for each alternative is not feasible. Alternative C would have a road off of National Forest System lands. Since this road would be located on state and private lands the reclamation requirements would vary. It is possible that on some land no reclamation would occur.

term costs and effectiveness of required mitigation practices to bring each alternative route to suitable conditions for their prescribed land use.

III. BONDING

The proposed operating plan anticipates a project life of 20 - 30 years (Page IV-2) and an additional 20 -25 years beyond the end of the operation for the vegetation to be fully reestablished in disturbed areas" (Page IV-10). Also, the proposal would develop an open pit mine on an unstable landform where slumping has occurred without disturbance. The US Forest Service and State of Utah should require suitable protection to their constituents in the form of bonding adequate to: 1) rehabilitate all lands disturbed either directly by the operation or as a result of mass movement caused by disturbances associated with the operation to meet Forest Plan Standards for Wilderness should that task fall to the government; 2) provide a source of funds for government completion of annual rehabilitation and maintenance of improvements on federal ownership should there be a lapse in performance by the proponent; 3) provide for recuperation of expenses including overhead costs associated with any lapse in performance by the proponent; 4) ensure diligent performance and adherence to the plan of operation on the part of the proponent. The intent of Item 1) above is to cover the cost of rehabilitation from those catastrophic events which can realistically be anticipated at this time due to the history of mass failures in this area. 62-6

In the response to Comment 49-9, the respondent was referred to page II-5 for information on the types of bonding requirements. However, no bonding discussion was found on page II-5.

IV. WATER QUALITY

In response to our comments (identified as 21-1 in the SDEIS), the supplement states that there will be no point source discharges of water from the proposed project. However, this statement is not supported by the discussion on page IV-4 which mentions the discharge of storm water into Gardner Canyon. The proposed facility would still require a NPDES permit even if the discharges were infrequent. 62-7

A frequent pollutant at mining sites is nitrate; a residual of the blasting compounds. The final EIS must address the increase in this pollutant and evaluate if the

62 - 6

We agree with your statement on the need for a bond and that concern is addressed on page II-5 of the FEIS. The document states, in the second to last paragraph, that the state regulations would include a reclamation surety. The document does not specify the type of bonding requirement, as this would depend on the type of operation proposed. Bonding would be used to assure that the state regulation set forth in the State of Utah Mineral Land Reclamation Act would be met. The document also recognizes that terms like "suitable protection" and "stable ecological condition" need to be defined in the context of the various laws, regulations and authorities associated with this case. This point is the rationale for several paragraphs in the document, including the introduction section for Environmental Consequences on page IV-1.

62 - 7

Our hydrologist separates discharge of storm water from point source discharge. We agree that the proposed action will generate increased sediment loading associated with storm water disharge. We also recognize that, based upon the operation of "NPOES", a permit might be required. But we rely on the state to make that determination as part of our requirement to comply with all necessary state laws. See page 11-5.

increase in nitrate will violate the State's anti-degradation water quality standard. It is also very likely that this residual of blasting will affect ground water quality, the effects of which must also be disclosed. 62-8

V. AIR QUALITY

The primary air impact from this project will involve particulate emissions. We have three areas of concern in this regard. They include particulate emissions from the mining operation itself, the transportation of the material to the mill - particularly if the material is dry and uncovered or during windy conditions, and particulates that would come from the roadbed due to vehicles associated with the project. 62-9

Air quality modeling in a screening mode should be performed to estimate the impacts of the project on the National Ambient Air Quality Standards (NAAQS) and the Mount Nebo Wilderness Area. If the screening mode produces results that indicate the project may approach the NAAQS, a more refined modeling analysis should be performed. Also, a visibility screening analysis should be performed to estimate impacts to the Mount Nebo Wilderness Area.

62 - 8

Based on discussions with our hydrologist and mineral staff, we do not see this as an issue. As a mitigation to this potential concern, as stated in the FEIS on page 11-5, the Forest Service would rely on the State to issue the necessary permits and through the DOGMI permitting process assure that compliance with all applicable statutes, rules, regulations, and ordinances of all local, state, and federal agencies with jurisdiction over any aspect of the mining operation are adheared to as set forth in rule R647-1-101 of the State of Utah's Mineral's Reclamation program.

62 - 9

We disagree with your comment on performing air quality modeling. As part of the data collection for this project, the State of Utah, environmental quality, Dept. of Air Quality Division, was contacted and based on the conditions associated with this analysis, modeling may not be needed. We also disagree with your comment on the need to perform a visibility screening. As part of the analysis, the forest service utilized input from a landscape architect to display the potential impacts.

United States Department of the Interior

OCT 1994

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Denver Federal Center, Building 56, Room 1003
P.O. Box 26087 (D-108)
Denver, Colorado 80225-0007

October 7, 1994

ER 94/632

Mr. Peter W. Karp
Forest Supervisor
Uinta National Forest
88 West 100 North
P.O. Box 1428
Provo, Utah 84603

Dear Mr. Karp:

The Department of the Interior (DOI) has reviewed the Supplement to the Draft Environmental Impact Statement (DEIS) for the Gardner Canyon Gypsum Mine Proposal, Uinta National Forest, Juab County, Utah, and has the following comments.

National Natural Landmark Resources

There is no mention of potential or designated National Natural Landmarks (NNLs) in the information provided in the DEIS. One potential NNL, Mount Nebo, is located within the Proposed Action area.

Status as a potential NNL is granted to a site that contains one or more ecological or geological feature(s) characteristic of a particular natural region and is determined to be of national significance. Mount Nebo was identified in a 1981 Middle Rocky Mountains Geological Theme Study (J. Keith Rigby, Department of Geology, Brigham Young University) as a potential NNL. It received a priority 1 C rating, which indicates the highest ranking for national significance with no immediate danger to its integrity. 63-1

If Alternative A is implemented, there would be no known significant impacts to this potential NNL. However, if either Alternative B or C are implemented, there would be impacts to the geological features since the NNL proposed boundary extends further south than the Mount Nebo Wilderness boundary.

Information regarding the Mount Nebo potential NNL should be included in Chapter III, Affected Environment, and analyzed in Chapter IV, Environmental Consequences of the Final EIS. For

63-1
Based on a conversation with Cheryl A. Schreier on November 28, 1994, to clarify this comment, the FEIS has been changed to include the potential of Mount Nebo as a National Natural Landmark.

additional information regarding this NNL, please contact Cheryl A. Schreier in the Rocky Mountain Regional Office of the National Park Service at (303) 969-2929.

Sincerely,

Robert F. Stewart

Robert F. Stewart
Regional Environmental Officer

John R. Swanson
3400 Edmund Blvd.
Minneapolis, MN 55406

OCT 21 1994

September 22, 1994.

Vinta National Forest
[illegible] North
Provo, Utah [illegible]

Gentlemen:

Please accept my following comments concerning the Supplement to the Draft Environmental Impact Statement, Bardmin Canyon Gypsum Mine Proposal.

I wish to advise that I [illegible] the Proposed Bardmin Canyon Gypsum Mine.

As this mine will destroy soil, water, [illegible] vegetation, wildlife and [illegible] resources of importance.

With the purpose of the Forest Service to promote biological diversity, ecosystems conservation, wilderness preservation, stream preservation, and wildlife, fish, and plant species preservation.

So as to fully benefit man, and all life!

Sincerely,

John R. Swanson

64-1

64 - 1
Thank you for your comment.

September 29, 1994

Mr. Peter Karp,
Uinta National Forest Supervisor
P. O. Box 1428
Provo, Utah 84603

E.I.S. Gardner Canyon Comments

1. Alternative C

The E.I.S. for Gardner Canyon is a fair document, but does not address the true expenses to build a new road, or the visual impact to Nephi or the visual impact on the Mt. Nebo Wilderness area. Major scars that will last over a lifetime will result if alternative is pursued. 65-1

2. Water - Point of Diversion

The mining of the gypsum will not impact the water source in any way, if the point of diversion is returned to its original location before the mud slide occurred in 1983? 65-2

3. Wetlands

There will be no riparian area in the vicinity of the mine as water will be piped from its original point of diversion. 65-3

4. Mass Failure of Mine Area

Mining of gypsum can and will stabilize the mountain removing the heavy rock from the slide area. The slide that occured in 1983 was because of the heavy core of gypsum on red beds, not because of the removal of ground cover. 65-4

5. Consequences to Economics With Implementation of Forest Service Reclamation requirements

Mitigation as described by the Forest Service would be a "taking of property", not allowing the owners to mine all available ore , a violation of the Fifth Amendment of the Constitution. 65-5

Final Statement

Although most issues have been addressed, they are on a biased perspective for the Forest Service.

Robert L. Steele
Christy K. Steele

65 - 1
The information on the road costs was calculated by our Forest Engineer. The costs are based on general assumptions assocaited with constructing a 12-foot wide haul road with turn-outs in the general areas as shown on the maps. We disagree with your comment on visual impacts. Visual impacts are addressed on page IV-2 of the FEIS.

65 - 2
We disagree with your comment. The point of diversion has not been returned to its original location and potential impacts from the mining operation could affect the water source.

65 - 3
We disagree with your comment. The point of diversion has not been returned to its original location.

65 - 4
We disagree with your comment. Our hydrologist believes that the proposed mining operation will create conditions that could lead to massive slope failure.

65 - 5
Thank you for your comment.

(9)

525 S. 820 E.
Spanish Fork, UT 84660

Nov. 25, 1994

Mr. Peter Karp
Uinta Forest Supervisor
P.O. Box 1428
Provo, UT 84603

UINTA NATIONAL FOREST
NOV 28 1994

Dear Mr. Karp,

I urge you to use all legal means available to stop the destructive Gardner Canyon Mine proposal in the Mt. Nebo Wilderness.

Because part of the claim block lies outside of the Mt. Nebo Wilderness, the proposed road construction is illegal.

Thank you for doing what you could thus far.

Sincerely,

Leif Olsen

66-1
Thank you for your comments.

Gregg Alex
6706 Se Hollowdale Dr.
Salt Lake City, UT 84121

(10)

11/23/94

Peter Karp
Uinta Forest Supervisor
P.O. Box 1428
Provo, UT 84603

Dear Mr. Karp:

I writing in reference to the proposed Gardner Canyon Gypsum Mine in the Mt. Nebo Wilderness area. I am pleased to hear the U.S. Forest Service (USFS) has tried to negotiate an exchange with the proponent. The negotiations failed and a supplement was prepared for the original Draft EIS. 67-1

As an environmental engineer for various industries, I am well aware of the need to balance economic benefits with natural resource protection. However, in this case I think the potential impacts to the Wilderness are too severe and may be unreclaimable.

The USFS should flex its muscles on this one, start a public campaign ~~if necessary~~, and seek legal action if necessary to prevent this mine from damaging the Mt. Nebo Wilderness. I would appreciate any further attempts you could make to protect this unique and important resource for Utah.

Sincerely,

Gregg Alex

67-1
Thank you for your comments.

APPENDIX I
REFERENCES

1. Alaska National Interest Lands Conservation Act (16 U.S.C. 3210).

2. Code of Federal Regulations, 40 C.F.R. Part 1500, as of July 1, 1986, Office of Federal Register, National Archives and Records Administration.

3. Code of Federal Regulations, 36 C.F.R. Parts 228, 251, and 293, as of July 1, 1994, Office of Federal Register, National Archives and Records Administration.

4. National Environmental Policy Act of 1969 (42 U.S.C. 4321 [note]).

5. Organic Administration Act of 1897 (30 Stat. 34, as supplemented and amended).

6. Sorensen M.L. et al., 1983, Mineral Resource Potential of the Birdseye, Nephi and Santaquin Roadless U.S. Geological Survey, Misc. Field Studies, Map, MF 1574, Scale 1: 62.500.

7. Trickler D.L. et al., 1984 Soil Survey of Fairfield-Nephi Area, Utah, Parts of Juab, Sanpete and Utah United States Department of Agriculture, Soil Conservation Service and Forest Service, in cooperation with the Department of the Interior, Bureau of Land Management, and the Utah Agricultural Experiment Station.

8. USDA Forest Service. Forest Service Manual, Sections 2323 F, 2816, and 2832. Washington D.C.

9. Wilderness Act of 1964 (F8 Stat. 890; 16 U.S.C. 1131-1136).

Note: An abundance of other reference material is not listed here, but is on file in the planning records for this document at the Spanish Fork Ranger District Office.

This page is a reference page used to track documents internally for the Division of Oil, Gas and Mining

Mine Permit Number S0230015 Mine Name Gardner Canyon Mine
Operator Robert Steele Date March 9, 1995
TO _____ FROM _____

__CONFIDENTIAL __BOND CLOSURE __LARGE MAPS X EXPANDABLE
__MULTIPUL DOCUMENT TRACKING SHEET __NEW APPROVED NOI
__AMENDMENT _OTHER _____

Description YEAR-Record Number

__NOI X Incoming __Outgoing __Internal __Superceded

Uinta National Forest
Final Environmental Impact
Statement

__NOI __Incoming __Outgoing __Internal __Superceded

__NOI __Incoming __Outgoing __Internal __Superceded

__NOI __Incoming __Outgoing __Internal __Superceded

__TEXT/ 81/2 X 11 MAP PAGES __11 X 17 MAPS __LARGE MAP

COMMENTS: _____

CC: _____