Smoky Canyon Mine
Panels F & G Final EIS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1
Introduction/Purpose & Need

1.0 Introduction

This Environmental Impact Statement (EIS) was prepared by the Bureau of Land Management (BLM), Pocatello Field Office, and the U.S. Forest Service (USFS), Caribou-Targhee National Forest (CTNF), in cooperation with the Idaho Department of Environmental Quality (IDEQ), in response to the proposed Mine and Reclamation Plan submitted by the J.R. Simplot Company (Simplot) in April 2003. Simplot is proposing to mine Panels F (Manning Creek lease) and G (Deer Creek lease) south of the existing Simplot Smoky Canyon Phosphate Mine, Caribou County, Idaho (the Project). The general location of the Project and the Study Area boundary are shown on **Figure 1.0-1.** The Study Area refers to the general area within which baseline data was collected. It encompasses the Project Area, defined as the geographic area that includes the proposed disturbance footprints of the Proposed Action and all Action Alternatives. Existing and proposed operation areas in relation to the Study Area are shown on **Figure 1.0-2**.

The J.R. Simplot Company has acquired federal phosphate leases I-27512 and I-01441, which convey exclusive rights to explore for and develop phosphate resources associated with Panels F and G. Leases convey to a private party a right and privilege, subject to the terms and conditions of the lease, to explore and develop the federally owned mineral estate, and also use the surface of federal lands - in this case National Forest System lands - within the boundaries of the lease.

Phosphate lease I-01441 was granted by the United States and issued in 1950 and phosphate lease I-27512 was granted and issued in 2000. The possessory interests conveyed in a lease are only revocable within its terms. By regulation, phosphate leases are issued for an indefinite period. They exist as long as rentals and royalties are paid and as long as the terms and conditions of the lease are met. The lease terms and conditions are subject to reasonable readjustment every twenty years. Lessees may relinquish their leases at any time if they can show to BLM's satisfaction that all terms and conditions of the lease, including reclamation have been met and that the public interest will not be impaired. Phosphate leases are not cancellable by the United States, except by due process in the case where the lessee does not meet the terms and conditions of the lease. Leases typically can only be reacquired from a lessee by the United States via trade, purchase, or other compensation due protections afforded private property like the interests associated with leases.

The existing Smoky Canyon mining and milling operations were authorized by a mine plan approval issued by the BLM and special use authorizations issued by the Forest Service for off-lease activities in 1982, supported by the Smoky Canyon Phosphate Mine Final EIS and Record of Decision (ROD). Mining operations began in Panel A in 1984, followed by the mining of Panel D. Mining is completed in both of these Panels. The mining of Panel E commenced in 1998. Mining at Panels B and C was authorized by a ROD as a result of a supplemental EIS in 2002.

The proposed Panels F and G mining operation would be located within the Caribou National Forest (CNF) portion of the CTNF, on federal phosphate leases administered by the BLM.

Portions of the facilities and associated mining related disturbances (i.e., transportation/haul routes) would extend off lease on National Forest System (NFS) Lands and could also potentially occur on private, State, and/or BLM administered lands. Mining would take place on Federal phosphate leases I-01441 and I-27512, including a proposed two-part lease modification to I-27512. The BLM is the lead agency for this EIS; the USFS is a joint lead agency, and the IDEQ is a cooperating agency (the Agencies).

The Agencies will use this EIS to determine whether or not the mine plan will be approved, the leases will be modified to include additional areas, and roads and utilities necessary for mining operations will be authorized off-lease. The agencies will evaluate which appropriate alternative and mitigation measures will be applied to their respective approvals and authorizations, and evaluate methods to reduce or eliminate release of potential contaminants from the proposed mining activities. The BLM will review the Panels F and G Mine and Reclamation Plan to determine the adequacy of environmental protection measures and compliance with applicable rules, guidance, and agency requirements. Because the leases are located on National Forest System lands, the BLM has consulted with the USFS concerning potential effects to surface resources.

About This Document

This document follows regulations promulgated by the Council on Environmental Quality (CEQ) for implementing the procedural provisions of the National Environmental Policy Act (NEPA) (40 CFR 1500-1508), BLM's NEPA Handbook (H-1790-1), and the USFS Handbook of Environmental Policy and Procedures (FSH 1909.15). This EIS describes the components of Simplot's mining proposal, and the potential environmental consequences of the federal actions required to authorize mining operations, including reasonable alternatives for authorizing mining operations.

In order to provide the agencies with flexibility in selecting actions out of the many alternatives, the alternatives were broken down into components. This allows partial approval of proposed actions (such as mining one panel and not the other) or the selection of a number of alternative actions. The alternative components are organized in two general groups: mining alternatives and transportation alternatives. The Agency Preferred Alternative will be a combination of alternative components.

Chapter 1 describes the purpose of and need for the implementation of mining in Panels F & G of the Smoky Canyon Mine; roles of the BLM and USFS; public participation in the EIS process; and general Project history.

Chapter 2 provides a historical perspective of phosphate mining in the Project Area; describes existing operations; presents the Proposed Action; presents and compares alternatives to the Proposed Action; lists potential mitigation actions to reduce or minimize impacts, and discusses the agency-preferred alternative.

Chapter 3 describes the affected environment in the Project Area.

Chapter 4 details the potential direct and indirect impacts associated with the Proposed Action and Alternatives.

Figure 1.0-1 Location Map

Figure 1.0-2 Existing and Proposed Operations

Chapter 5 describes the potential cumulative impacts associated with the Proposed Action and Alternatives.

Chapter 6 describes consultation and coordination with State and federal agencies, as well as Native American Consultation, and provides a list of the EIS preparers.

Chapter 7 includes public concerns, derived from public and agency comments received after the release of the DEIS, and agency responses to those public concerns.

Chapter 8 lists references cited in developing the EIS, as well as providing the index, acronyms, units of measure, and glossary of terms.

1.1 Purpose and Need

The purpose and need for the BLM and the USFS is to evaluate and respond to a proposed Mine and Reclamation Plan (Simplot's Proposed Action) from Simplot (2003a) that proposes the recovery of phosphate ore reserves contained within Panels F and G phosphate leases, as directed by the Mineral Leasing Act of 1920. The current mine would be expanded to adjacent leases to replace depleted reserves at the existing mine. Ore would be beneficiated at the existing Smoky Canyon milling facilities. There are no other phosphate reserves economically available that can support the existing mill facilities. The BLM is required to evaluate mining proposals and issue decisions related to the phosphate leases. This includes the mining alternatives that would occur within the lease boundaries and decisions to modify or enlarge the existing leases.

USFS authorization is required for all off-lease operations related to the project, such as haul roads and utilities. The USFS must determined whether and how to authorize these operations. The USFS is required to evaluate transportation alternatives providing access to existing phosphate leases and issue decisions regarding Special Use Authorizations (SUA's) for haul roads, access roads, power lines, or top soil stockpiles located outside of the phosphate lease boundaries on National Forest System Lands. Since the on-lease operations will occur on National Forest System lands, the USFS is also a cooperating agency in the analysis of potential effects to those lands, and the BLM has consulted with the USFS in completing the effects analysis for on-lease operations.

1.2 Authorizing Actions

1.2.1 Permits, Approvals, and Consultations

The existing and proposed mining operations must comply with laws and regulations for mining on public land. In addition to the BLM and USFS, other federal, State, and local agencies have jurisdiction over certain aspects of the Proposed Action and potential Action Alternatives. **Table 1.2-1** lists the agencies and identifies their respective authorizing responsibilities.

TABLE 1.2-1 MAJOR PERMITS, APPROVALS, AND CONSULTATIONS POTENTIALLY REQUIRED FOR THE SMOKY CANYON MINE, PANELS F & G

PERMIT OR APPROVAL NAME	NATURE OF PERMIT ACTION	APPLICABLE PROJECT COMPONENT	STATUS OF PERMIT OR APPROVAL ACTION
BLM			
Record of Decision	Compliance with National Environmental Policy Act (NEPA)	On-lease operations	Required for final approval, pending availability period of FEIS
Mine and Reclamation Plan	Compliance with 43 Code of Federal Regulations (CFR) 3590.2a, 3592.1a and the Pocatello BLM RMP	On-lease operations	Pending after Record of Decision on the final EIS
Consult with USFS	USFS provides advice to BLM regarding potential effects to surface resources under its administration	On-lease operations	During compilation of DEIS and FEIS
Lease Modification	Authorize expanding existing lease boundaries in compliance with 43 CFR 3500	Expansion of existing Federal phosphate lease 027512	Pending after Record of Decision
Migratory Bird Treaty Act	Protects migratory birds	All surface disturbing activities	Analysis completed
Bald Eagle Protection Act	Protects bald and golden eagles	All surface disturbing activities	Analysis completed in BA
USFS			
Special Use Authorization	Surface disturbance on USFS-managed lands off-lease.	Use and Occupancy of National Forest System land off existing BLM leases	Pending after Record of Decision
Section 106 Compliance	Evaluate potential effects of federal actions on historic properties	All federal action that may affect historic properties	ISHPO concurrence received on cultural resource site evaluations
Endangered Species Act Consultation (Section 7)	Insure federal actions do not jeopardize listed species	Any federal action that may affect listed species or habitat for listed species	Biological Assessment (BA) was prepared for the agency preferred alternative; consultation complete;
ENVIRONMENTAL PROTECTION AGENCY (EPA)			
National Pollution Discharge Elimination System (NPDES) Permit	Protects quality of surface waters from stormwater discharge under Clean Water Act	Storm Water Pollution Prevention Plan (SWPPP)	Annually Renewable SWPPP to be updated pending Record of Decision
Spill Prevention Control and Countermeasures Plan (SPCC)	Provides management direction for potential spills	Bulk petroleum products storage	In place. Updated as needed for changes in operations
US CORPS OF ENGINEERS (USACE)/JOINT APPLICATION			
Permit to Discharge Dredged or Fill Material (Section 404 Permit)	Authorized placement of fill or dredged material in Waters of the U.S. or adjacent wetlands. Clean Water Act Compliance	Disturbances of wetlands and/or Waters of the U.S.	Permits must be obtained and approved before construction
SHOSHONE-BANNOCK TRIBES			
Native American Consultation	Government-to-government consultation regarding mitigation of Project impacts on treaty rights	All ground disturbing activities or public access restrictions	On-going consultation
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY (IDEQ)			
Air Quality Permit	Release of air pollutants in compliance with the existing Smoky Canyon Mine permit	Elements that contribute to air quality issues, such as blasting, hauling, or crushing	Required air approvals for existing property already in hand, further permit needs pending Record of Decision

PERMIT OR APPROVAL NAME	NATURE OF PERMIT ACTION	APPLICABLE PROJECT COMPONENT	STATUS OF PERMIT OR APPROVAL ACTION
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY (IDEQ) (CONT'D)			
401 Certification	Water quality certification for authorized placement of fill or dredged material in Waters of the U.S. or adjacent wetlands	Disturbances of wetlands and/or Waters of the U.S.	Certification must be obtained as part of the USACE permit review process
Resource Conservation and Recovery Act program (adopted federal standards)	Management of hazardous waste	Storage and off-site disposal of hazardous wastes	Exempt Small Quantity Generator Notification already completed
Board of Health & Welfare	Governs quality and safety of drinking water	Culinary water supply	No additional approval required
IDAHO DEPARTMENT OF WATER RESOURCES (IDWR)			
Stream Channel Alteration Permit(s)	Protection of perennial stream channels	Potential stream crossings	Application will be filed to seek approval before construction
IDAHO DEPARTMENT OF LANDS (IDL)			
Mine Reclamation Plan Permit	Permit for reclamation	Mining and reclamation plans	Pending federal approval
Easement Across State Land	Easement for a haul/access road crossing of Section 36 T9S R45E	East and Modified East Haul/Access Road	Application will be filed to seek approval before construction
CARIBOU COUNTY			
Conditional Use Permit	Approval of construction of facilities within an approved land use	General facilities	No additional permit required
BUREAU OF ALCOHOL, TOBACCO, AND FIREARMS			
High explosives permit Explosives Manufacturing Permit	Possession of explosives. Mixing emulsion with ammonium nitrate in blast holes	Blasting in open pits and during construction of portions of proposed roads.	No additional approvals required

EPA's Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP-2000) was issued in October 2000 and expired on October 30, 2005. Simplot's coverage under MSGP-2000 was automatically granted an administrative continuance until the new permit (MSGP-2006) is issued, which is expected in late 2006 or early 2007. As required, Simplot will continue to comply with all terms and conditions of MSGP-2000. Once MSGP-2006 is approved, Simplot will need to submit a Notice of Intent indicating that they meet the eligibility requirements described in the new permit. There may also be new compliance requirements regarding SWPPP contents, monitoring, and BMPs.

A Section 404, Clean Water Act Permit(s), will also be required by the U.S. Army Corps of Engineers (USACE). The USACE will render decisions related to that permit and how to mitigate the impacts to affected wetlands and Waters of the United States.

The Enforcement of federal laws that protect Migratory Birds and Endangered Species lies with the U.S. Fish and Wildlife Service (USFWS) and not primarily with the land management agencies (USFS and BLM). The USFWS will review a Biological Assessment (BA) for listed plant and animal species prepared by the USFS for the agency-preferred alternative. The USFWS will conduct consultations with the land management agencies as they deem necessary and provide direction as required for protection of species within their regulatory authority.

1.2.2 Decisions To Be Made

The BLM Idaho State Director (Director), who is the responsible BLM official for the EIS and all on-lease lands and lease modifications, will make a decision whether or not to issue the lease modifications and approve the mine plan or an alternative to the mine plan proposed by Simplot. The Director will consider the following: comments and responses generated during scoping, the proponent's rights to recover leased mineral resources, and review of the EIS; anticipated environmental and socioeconomic consequences discussed in the EIS; recommendation from the CTNF Supervisor; and applicable laws, regulations, and policies.

The CTNF Forest Supervisor, who is the responsible official for Caribou-Targhee National Forest System (NFS) Lands, will be responsible for the issuance and approval of any Special Use Authorizations (SUAs) needed for mining operations located off-lease within the CTNF. The Forest Service would also provide advice to the BLM regarding potential effects of on-lease operations to land and resources under its administration.

The BLM will consider approval of an entire mine plan for both Panels F and G but can also consider a partial approval of just Panel F, or a phased approval of Panel F followed by a later approval of Panel G. The BLM will finalize and sign the Record of Decision (ROD) for the mining activity. The regulatory approvals will include approval of a site-specific Mine and Reclamation Plan and the possible issuance of phosphate lease modifications by the BLM.

1.3 Relationship to Agency and Other Policies and Plans

1.3.1 Federal Land Management Plans

The Proposed Action has been reviewed for compliance with agency policies, plans, and programs. Two federal land management plans guide land use developments and activities in the Project Area: the BLM Pocatello Resource Area Resource Management Plan (RMP) and the USFS CNF Revised Forest Plan (RFP). The proposal is in conformance with minerals decisions in the Record of Decision, Pocatello Resource Area, Resource Management Plan (BLM 1987), approved in 1988.

Management prescriptions have been developed and are applied to specific areas of the National Forest System Lands to attain multiple-use and other goals and objectives. The Study Area **(Figure 1.0-1)** includes six management prescriptions: Prescription 2.7.2 (d) – Elk and Deer Winter Range, Prescription 2.8.3 – Aquatic Influence Zone, Prescription 5.2 (b, c, and f) – Forest Vegetation Management, Prescription 6.2 (b, e, f) – Rangeland Vegetation Management, Prescription 8.2.1 – Inactive Phosphate Leases, and Prescription 8.2.2(g) – Phosphate Mine Areas (USFS 2003a).

Almost all the Project Area is within the 8.2.1 management prescription. This management prescription area is shown on Map 11 of the RFP (USFS 2003a). It is basically a ½-mile buffer around Known Phosphate Lease Areas (KPLAs) and inactive leases that existed at the time the RFP was prepared, and it was intended to include phosphate mining operations and ancillary facilities needed for development of mines within the 8.2.1 management prescription area. This same area is also covered by other management prescriptions shown on Map 8 of the RFP. Those are the prescriptions that guide USFS management until a site-specific, phosphate mine

development plan is submitted to the USFS. Then the area of the specific mine plan is intended to only be managed under prescription 8.2.2. Thus, the RFP management prescription that applies to this Proposed Action is 8.2.2, with the exception of the components of the Proposed Action that occur outside the ½-mile buffer area (i.e. haul access roads). In these areas, the appropriate prescription would be in effect.

The management prescriptions are not designed to stand alone and are part of the management direction package presented in the RFP. Where a management prescription allows an activity, such as the development of existing phosphate leases, the standards and guidelines in the prescription or in the Forest-wide direction (explained below) would provide specific parameters within which the activity must be managed. In land areas where prescriptions are applied, direction provided under each prescription would override Forest-wide direction if there were a conflict. Under Prescription 8.2.2(g) (USFS 2003a, page 4-82), site-specific mining and reclamation plans developed by the mining industry will be jointly reviewed and evaluated by the USFS, BLM, and regulatory agencies through the environmental analysis process. One of the goals of this prescription is to "Provide for phosphate resource development with consideration given to biological, physical, social, and economic resources (USFS 2003a)."

The RFP also provides Forest-wide guidance for Desired Future Conditions (DFCs) for each resource. From these DFCs, Forest-wide goals have been formulated, and, for some resources, objectives have been developed to help measure the progress in meeting these goals and achieving the DFCs. Standards and guidelines, by resource, are presented in the RFP and are used to promote the achievement of the DFCs and to assure compliance with laws, regulations, Executive Orders, or policy direction established by the USFS. Disclosure of and compliance with these Forest-wide Standards and Guidelines and the applicable prescriptions listed above are discussed within this EIS. Particular reference is made to the goals of the DFCs for minerals and geology: "1) On mined lands and other drastically disturbed lands, maintain or reestablish hydrologic function, integrity, quality, and other surface resource values within the capability of affected lands; 2) provide for mineral resource development using state-of-the-art practices for surface resource protection and reclamation, and with consideration of social and economic resources; 3) mining activities are administered to prevent the release of hazardous substances in excess of established State and/or federal standards; 4) reclamation is designed to eliminate or minimize wildlife, livestock, and/or human exposure to hazardous substances" (USFS 2003a, page 3-11). The approach for active phosphate leases in the revised Forest Plan (USFS 2003a, pages 4-82 to 4-85) is to incorporate Best Management Practices (BMPs) into the conditions of approval for site-specific mining and reclamation plans, and to allow for developments in research and technology over time to be incorporated into the prescribed practices and monitoring systems.

1.3.2 Inventoried Roadless Areas

Due to the presence of Inventoried Roadless Areas (IRAs) in the Project Area, the background status of IRA policy in the USFS and State of Idaho are described in this section.

The USFS identified IRAs nationwide as part of its 1972-1985 Roadless Area Review and Evaluation (RARE) process. All the IRAs in the nation were reviewed again by the Forest Service in 1999 under the Roadless Area Conservation Initiative (RACI). In November 2000, the USFS issued the Final EIS for the proposed Roadless Area Conservation Rule (RACR). The final RACR (36 CFR 294) was published in the Federal Register on January 21, 2001.

The Forest Service Roadless Area Conservation Rule (RCRA) (36 CFR Part 294) currently applies to Forest Service actions in Inventoried Roadless Areas (IRA). The RACR prohibits a Forest Service responsible official from approving road construction and reconstruction and the cutting, sale, or removal of timber in IRAs except when the responsible official determines certain circumstances apply. Among the circumstances when the rule does not apply are when one of the following circumstances exists:

(1) A road is needed to protect public health and safety in cases of an imminent threat of flood, fire, or other catastrophic event that, without intervention, would cause the loss of life or property;

(2) A road is needed to conduct a response action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or to conduct a natural resource restoration action under CERCLA, Section 311 of the Clean Water Act, or the Oil Pollution Act;

(3) A road is needed pursuant to reserved or outstanding rights, or as provided for by statute or treaty;

(4) Road realignment is needed to prevent irreparable resource damage that arises from the design, location, use or deterioration of a classified road and that cannot be mitigated by road maintenance. Road realignment may occur under this paragraph only if the road is deemed essential for public or private access, natural resource management, or public health and safety;

(5) Road reconstruction is needed to implement a road safety improvement project on a classified road determined to be hazardous on the basis of accident experience or accident potential on that road;

(6) The Secretary of Agriculture determines that a Federal Aid Highway project, authorized pursuant to Title 23 of the United States Code, is in the public interest or is consistent with the purposes for which the land was reserved or acquired and no other reasonable and prudent alternative exists; or

(7) A road is needed in conjunction with the continuation, extension, or renewal of a mineral lease on lands that are under lease by the Secretary of the Interior as of January 12, 2001 or for a new lease issued immediately upon expiration of an existing lease. Such road construction or reconstruction must be conducted in a manner that minimizes effects on surface resources, prevents unnecessary or unreasonable surface disturbance, and complies with all applicable lease requirements, land and resource management plan direction, regulations, and laws. Roads constructed or reconstructed pursuant to this paragraph must be obliterated when no longer needed for the purposes of the lease or upon termination or expiration of the lease, whichever is sooner.

Several groups and states filed lawsuits challenging the RACR. The Idaho Federal District Court issued a preliminary injunction on May 10, 2001 prohibiting the USFS from implementing the rule. On December 12, 2002, the Ninth Circuit Court of Appeals reversed and remanded the Idaho District Court's injunction. The Ninth Circuit Court issued its mandate to the Idaho District Court to remove its preliminary injunction on April 4, 2003, thereby putting the RACR back into effect. On July 14, 2003, the U.S. District Court for the District of Wyoming found the RACR to be unlawful and ordered the rule be permanently enjoined.

On July 12, 2004, Ann M. Veneman, former Secretary of Agriculture, announced a proposal to establish a state petitioning process for IRA management. The proposed rule was published on July 16, 2004. On May 13, 2005, the USFS issued a Final State Petition Rule, which replaced the enjoined 2001 RACR. This 2005 rule established a process for Governors with National Forest System IRAs in their state to petition the Secretary of Agriculture to establish or adjust management requirements for these areas. Unless Governors chose to initiate a change through the petition process, existing IRA management requirements contained in individual land management plans would remain unchanged.

In preparation for revising its Forest Plan, the CNF completed an IRA re-inventory describing changes in the boundaries and character of the 34 IRAs in the CNF from 1985 to 1996. The IRAs, Phosphate Mine Leases, and Known Phosphate Lease Areas (KPLAs) within the CNF are shown on **Figure 1.0-3**. In 2001, the USFS issued Interim Directives and published an Advanced Notice of Proposed Rulemaking (ANPR) describing how to evaluate IRAs for management decisions. The CNF then conducted an IRA re-evaluation, using the five principles for evaluating IRAs that were published in the ANPR. The results from this re-evaluation were incorporated into Alternative 7R of the RFP that was subsequently identified as the Preferred Alternative in the ROD (see USFS 2003b: Appendix R).

The Sage Creek Roadless Area (IRA No. 04166) and the Meade Peak Roadless Area (IRA No. 04167) occur within the Project Area. Detailed descriptions and characteristics of both of these IRAs are provided in **Section 3.11**. The management of Sage Creek, Meade Peak, and other IRAs within the CNF fall under the RFP. The proposed mining activities within the existing leases, and the off-lease disturbances, are currently considered by the CTNF to be allowable under Prescriptions 8.2.1 and 8.2.2 of the RFP.

On September 19, 2006, the United States District Court for the Northern District of California issued a decision, which had the effect of invalidating the 2005 State Petition rule for roadless area management, and reinstating the RACR. As a result of this ruling, the RACR currently governs roadless area management on National Forest System lands.

1.4 Public Scoping

A preliminary Mine and Reclamation Plan was submitted to the BLM and CTNF on April 21, 2003. The Notice of Intent (NOI) for the Smoky Canyon Mine EIS was published in the Federal Register on September 15, 2003. A copy of this NOI is included in the *Scoping Summary Report, Smoky Canyon Mine Panels F and G Extension EIS* (JBR 2004a). A legal notice was published in the Pocatello, Idaho (September 19, 2003) and Afton, Wyoming (September 25, 2003) newspapers. A news release was also published in Pocatello and Boise, Idaho newspapers September 17, 2003 and September 18, 2003, respectively.

A public mailing list was compiled and 115 scoping letters were sent to federal, State, and local government agencies, and members of the interested public. Two public meetings were held. One meeting was held in Afton, Wyoming on October 8, 2003 at Star Valley High School, and the other in Pocatello, Idaho on October 7, 2003 at the BLM Pocatello Field Office. The open house meetings provided a Project description, photo displays of the Project Area, and a forum for exchange of information and ideas or concerns related to the Project. Comment forms were available at the meetings and agency, proponent, and consultant representatives were present.

Public comments regarding the Project were solicited and then compiled in the Scoping Summary (JBR 2004a) to help determine the issues and alternatives for evaluation in the environmental analysis. By the close of the scoping period on October 20, 2003, 49 comment letters, 3 comment forms, and 130 e-mails had been received for the Smoky Canyon Mine Project. After the end of the scoping period, 47 additional comment e-mails were received for a grand total of 229 comments. The letters included 143 standardized comment letters (about 62 percent) of four general types. Comments were submitted by agencies, Tribal governments, groups, and interested citizens. A complete list and copies of all written comment letters, forms, and e-mails can be found in the Scoping Summary (JBR 2004a).

Identified concerns included potential effects of the Project on IRA's, water quality, wetlands, wildlife and fishery habitats, livestock grazing, soils, air quality, socioeconomics, private property values, forested areas, recreation, development of Best Management Practices (BMPs) for mine operations, and 1868 Fort Bridger Treaty Rights.

A 60-day Draft EIS review period was initiated by publication of the Notice of Availability (NOA) for the Draft EIS in the Federal Register on December 29, 2005 by BLM and December 30, 2005 for the EPA NOA. The NOA was amended January 13, 2006 and a comment period extension was published by the EPA on February 24, 2006. The comment period was extended an additional 15 days and ended March 21, 2006. At the end of the comment period, a total of 38,616 letters, email, and comment forms had been received. Of these, 1,055 were original (or substantive) comment letters. The remaining 37,561 were form response letters or other organized response campaigns. See Chapter 7 for the public comments on the Draft EIS and responses.

Figure 1.0-3 Phosphate Mine Leases, Known Phosphate Lease Areas, Inventoried Roadless Areas (1996)

1.5 Tribal Treaty Rights and Native American Consultation

Federal agencies acknowledge the federal trust responsibility arising from Indian treaties, statutes, executive orders, and the historical relations between the United States and Indian tribes. As stated in their comments on the DEIS, the Shoshone-Bannock describe their reserved treaty rights as follows:

> "The Shoshone – Bannock Tribes have the reserved inherent and sovereign rights to hunt, fish, gather, and exercise uses (including, but not limited to, grazing activities) on the "unoccupied lands of the United States" as understood by the Tribes at the time the Fort Bridger Treaty of 1868 was signed. The Tribes' reserved rights apply to federal and some state lands that are unoccupied, of which includes the CTNF lands as indicated by the project boundaries. These rights are still in effect, and the federal agencies involved in this process recognize these rights. Government to Government consultation with the Fort Hall Business Council of the Shoshone-Bannock Tribes is required for any land management activities and land allocations that could affect these rights."

As part of government-to-government relations, the Shoshone-Bannock Tribes and CTNF are developing a protocol that will guide coordination, cooperation, and consultation between the two entities. Tribal concerns and objections with site-specific Projects revolve around impacts to their tribal treaty rights. According to the Fort Bridger Treaty and subsequent court cases clarifying these rights, the Shoshone Bannock Tribes have the right to hunt, fish, gather, and practice traditional uses on all unoccupied lands in the United States. On ceded lands[1], the Tribes have also retained the right to graze domestic livestock. In addition, the Northwest Band of the Shoshone also have treaty rights on the CTNF. Forest Service managers have a responsibility to protect those resources essential for the Tribes to exercise their treaty rights. Concerns and objections that the Shoshone-Bannock Tribes have with this Project are discussed in this EIS.

Applicable Forest-wide goals and standards of the USFS CNF Revised Forest Plan (RFP, USFS 2003a) regarding tribal coordination are listed below.
Forest-wide Goals:

- Tribal Treaty rights and other Federal trust responsibilities are met and Tribal governments are involved in planning and implementation of programs of mutual interest.
- The Forest recognizes the tribes' right to self-determination and control of their resources and their relationship both among themselves and with non-Indian governments, organizations, and persons.
- Culturally significant items and sites are identified, protected, and treated within the context of the culture that identifies and values them.
- Relationships with American Indian populations are improved to better understand and integrate Tribal needs and desires with Forest management activities.

Forest-wide Standard: Forest consultation procedures and intergovernmental agreements with the tribes to guide future cooperative efforts shall comply with the protocols set forth in the

[1] These lands were formerly part of the Fort Hall Reservation but later ceded to the federal government to allow for pioneer settlement. The ceded lands on the CTNF are primarily on the Westside Ranger District.

National Resource Book on American Indian and Alaska Native Relations Working Draft 1995 or its successor (USFS 2003a, Caribou RFP 3-35).

Desired Future Conditions: Lands within the Forest serve to help sustain and provide opportunities for traditional American Indian land and resource uses. The opportunities help sustain the American Indians' way of life, cultural integrity, social cohesion, and economic well-being (USFS 2003a, Caribou RFP 3-35).

The BLM Pocatello Field Office Resource Management Plan and BLM policy acknowledge a relationship between the U.S. Government and American Indian tribes based on Indian trust responsibilities and other legal agreements such as treaties made between these sovereign nations. As a federal agency, the BLM shares in the federal trust responsibility to the Shoshone-Bannock Tribes on the management of federal lands. The federal trust responsibility is related to traditional/cultural uses, as well as the health of the land and water resources and therefore to the socio-economic needs of the Shoshone-Bannock Tribes. Consultation with the Shoshone-Bannock Tribal Council is required on land management activities and land allocations that could affect these rights. The goal of this coordination is to assure that tribal governments, Native American communities, and individuals whose interests might be affected have a sufficient opportunity for productive participation in BLM resource management decision making as set forth in the BLM Manual Section 8160.

The BLM Pocatello Field Office, Resource Management Plan (1988) guides land management activities on public lands. Land management decisions such as mineral leasing and subsequent mining need to recognize these rights and trust responsibilities. The BLM also administers the subsurface mineral estate, for phosphate and other non-energy leasable minerals, on the Caribou-Targhee National Forest. The 1868 Fort Bridger Treaty reserves off reservation treaty rights to Tribal members. Provisions of the Fort Bridger Treaty reserve the Shoshone-Bannock people's rights to practice hunting, gathering, fishing, and traditional use on all unoccupied public lands. As these treaty rights are related to surface management, and not the mineral estate, the BLM relies on coordination with the Forest Service and compliance with the CNF Revised Forest Plan (USFS 2003a) to ensure sufficient protection of those resources to which the Shoshone-Bannock people have certain rights.

The engineered cover system (**Section 2.6**, Mining Alternative D), which will be incorporated into the Agency Preferred Alternative, is designed to reduce selenium release to ground water and surface water to well within acceptable limits. Thus, the Agency Preferred Alternative would comply with State and federal water quality standards and be protective of fisheries and the aquatic environment. In addition, the engineered cover system would also protect against the uptake of selenium by reclamation vegetation thereby protecting grazing and wildlife resources. Additional mitigation would include culverts with fish ladders where roads cross fish bearing streams, sediment control measures, and scheduling ground disturbing activities to minimize impacts to migratory birds. **Section 2.5**, **Appendix 2C**, and **Appendix 2D** further describe environmental protection measures.

To ensure a thorough assessment of issues and potential impacts to Native American Indians and their treaty rights, numerous contacts were made with the Shoshone-Bannock Tribes at various levels that ranged from meetings with Tribal technical staff to mine site visits, as well as formal government-to-government consultation with the Fort Hall Business Council. See **Table 1.5-1** below.

The following table summarizes the interactions to date.

TABLE 1.5-1 CONTACT BETWEEN TRIBES AND AGENCIES

DATE	TYPE OF CONTACT	DESCRIPTION
September 15, 2003	Scoping Letter	Initial contact with Shoshone-Bannock Tribes regarding the Project
October 2, 2003	Meeting	Agencies and Tribal Technical Staff at Fort Hall
October 14, 2003	Field Meeting	Agencies and Tribal Technical Staff
October 17, 2003	Letter	Tribes' response to scoping letter
October 30, 2003	Field Meeting	Agencies and Tribal representatives
July 29, 2004	Field Meeting	Tribal Cultural Committee and BLM
August 26, 2004	Letter	Agency response to Tribes' scoping letter and Project update
April 15, 2005	Meeting	Agencies and Tribal Technical Staff at Fort Hall
June 13, 2005	Letter	Agency request for Gov't to Gov't consultation with Fort Hall Business Council
June 27, 2005	Government to Government Consultation	Fort Hall Business Council and Agencies
July 18, 2005	Meeting	BLM, Tribal Technical Staff, and 3rd party contractor at Fort Hall
December 23, 2005	DEIS	Distribution of DEIS
March 20, 2006	Letter	Fort Hall Business Council comment letter on DEIS
May 4, 2006	Letter	Agency response to Tribes' DEIS comment letter
June 29, 2006	Government to Government Consultation	Fort Hall Business Council and Agencies
September 7, 2006	Government to Government Consultation	Fort Hall Business Council and Agencies

Coordination with the Tribes will continue throughout the EIS process. A more complete description of the Native American consultation process is provided in **Sections 3.14** and **4.14**.

1.6 Issues and Indicators

The issues to be evaluated in this EIS are derived from the final Smoky Canyon Mine Panels F and G Extension EIS Scoping Summary issued in March 2004 (JBR 2004a). In that document, the comments received during scoping from agencies and the public were summarized into categories, which became the basis for defining issues and indicators.

The defined issues are presented under components of the human and natural environment that are customarily addressed in impact analysis. The indicators are typically the quantifiable criteria that are used to judge the significance of the impact, although some issues rely on a discussion of effects for comparison purposes or an evaluation of the impact instead of a quantifiable indicator. Indicators are based on regulatory requirements, baseline data, trends, and best management technology. A description of the issues and indicators by topic is provided below.

1.6.1 Geology, Minerals, and Topography

There are no controversial issues for these resources. Chapter 4 will still disclose that a certain amount of phosphate ore, a non-renewable resource, would be removed from the leases and describe the effects to topography, fossils, and ARD from the reclaimed mine and transportation facilities.

1.6.2 Air and Noise

Issue (air):
The Project emissions may cause air quality effects that are different from existing operations due to relocation of mining emissions and from increased traffic on haul roads and possibly offsite access roads.

Indicators (air):
Quantities of exhaust and dust emissions generated from haul trucks and other mining equipment that may impact the air quality in this area;

Issue (noise):
Noise from mine operations, mine traffic on haul roads, and traffic on access roads may affect Project Area residents.

Indicators (noise):
Estimated noise levels from mining operations, haul truck traffic related to mining, and access road traffic.

1.6.3 Water Resources

Issue:
The mining operations and related transportation activities may cause changes to the quantity and quality of surface water or groundwater in the Project Area and within the Crow Creek watershed area.

Indicators:
Changes in the volume and timing in surface runoff water caused by the operations;

Increases in suspended sediment, turbidity, and contaminants of concern in downgradient streams, ponds, and other surface waters, with regards to applicable surface water quality standards;

Reduction in available groundwater to supply existing baseline flow of streams and springs in the Project Area from pumping the Panel G water supply well;

Increases in concentrations of contaminants of concern in groundwater under and downgradient of pit backfills and overburden fills, with regards to applicable groundwater quality standards;

Length of roads that occur on the Meade Peak Shale outcrop, a geologic bed comprised of ore and waste rock that contains some COPCs, that could contribute selenium in runoff to nearby streams.

1.6.4 Soils

Issue:
The mining operations and related transportation activities may affect soil resources in the Project Area.

Indicators:
Estimated acres of soil disturbance created during mining, and quantity of acres not reclaimed at the conclusion of mining.

1.6.5 Vegetation

Issue:
The mining operations and related transportation activities may affect vegetation patterns and productivity in the Project Area, including Threatened, Endangered, Proposed, Candidate, and Sensitive (TEPCS) plant species habitat.

Indicators:
Acres of vegetation communities and suitable TEPCS habitats that would be disturbed and also potentially subjected to an increase in weed invasion;

Acres of disturbed area that are planned for reclamation and the types of vegetation that would be restored;

Bioaccumulation potential for reclamation vegetation to become contaminated in excess of USFS guidelines from reclaimed backfills or external fills;

Acres of permanent vegetation conversion from forest to non-forest cover and predicted re-growth rate back to forest conditions;

Compliance with the applicable RFP Standards and Guidelines.

1.6.6 Wetlands

Issue:
Construction of mine facilities and other surface disturbances may directly affect wetlands and Waters of the U.S. (WOUS) and could include increased metal and sediment loading in surface waters and/or changes in water quantity/quality in both surface waters and groundwater supporting WOUS.

Indicators:
The number of wetland acres disturbed by mining activities and related facilities;

The number of WOUS crossings caused by mining and new transportation corridors;

Change in function and value of all wetlands disturbed by the mine and related facilities.

1.6.7 Wildlife Resources

Issue:
The mining operations and related transportation facilities may physically affect terrestrial wildlife, including Threatened, Endangered, Proposed, Candidate, and Sensitive (TEPCS) and Management Indicator Species (MIS), through direct disturbance and fragmentation of their habitat.

Indicators:
Acres of different wildlife habitats physically disturbed and the juxtaposition of that disturbed habitat over the life of proposed mining activities;

Acres of disturbance to and the proximity of the proposed operations to high value habitats such as: TEPCS species habitat, crucial and or high value big game ranges, wetlands, and seep and spring areas;

Increased uptake by wildlife of contaminants of concern in mining disturbed areas and areas that are reclaimed;

Increased use of existing wildlife habitat for recreational purposes;

Increase in mining and transportation related noise levels in wildlife habitat;

Increase in vehicle traffic in the Project Area and potential for increased wildlife mortality through accidents;

Compliance with the applicable RFP Standards and Guidelines.

1.6.8 Fisheries and Aquatics

Issue:
The Project may affect cutthroat trout, other native fish, amphibians, or aquatic resources in the Project Area.

Indicators:
The length of intermittent and perennial stream channels directly affected by road fill and associated culverts, and comparison with the undisturbed lengths of these stream channels in the Project Area;

Acres of aquatic influence zone (AIZ) habitat to be affected and comparison with undisturbed acreage of this habitat in the Project Area;

Quantities of suspended sediment and contaminants of concern in fishery resources in the area, with emphasis on compliance with applicable aquatic life water quality standards;

Compliance with the applicable RFP Standards and Guidelines.

1.6.9 Grazing Management

Issue:
The Project may impact permitted livestock grazing within and adjacent to the Project Area.

Indicators:
Acres of suitable livestock foraging areas to be disturbed and the length of time livestock would be excluded from the mining areas, and comparison with undisturbed acres of grazing allotments in the Project Area;

Effects of relocation of grazing from directly impacted allotments to alternate allotments during active mining and reclamation;

Description of grazing allotment improvements and structures that would be disturbed;

Estimated concentrations of contaminants of concern in grazing water sources;

Change in suitable grazing acreage caused by increased Contaminants of Potential Concern (COPCs) in reclamation vegetation.

1.6.10 Recreation and Land Use

Issue:
Recreational use and public access to the Project Area may be limited or prevented by mining activities and could impact adjacent private lands.

Indicators:
Number of acres of active mine area temporarily closed to public use;

Number of recreational access points temporarily closed to public use;

Acres of recreational areas temporarily blocked from public access;

Locations of primary access roads blocked or closed by mining activities.

Issue:
Impacts may occur from unauthorized Off-Highway Vehicle (OHV) and All-Terrain Vehicle (ATV) use on reclaimed and closed roads.

Indicators:
Predicted use of recreational vehicles on reclaimed area or roads with consideration of methods used to prevent OHV and ATV use.

1.6.11 Inventoried Roadless Areas/Recommended Wilderness

Issue:
The Project may impact Inventoried Roadless Area characteristics.

Indicators:
Description of impacts to roadless attributes and characteristics.

1.6.12 Visual and Aesthetic Resources

Issue:
The Project may adversely affect visual resources in the area.

Indicators:
Estimated compliance with the Visual Quality Objectives in the USFS Visual Management System;

Change in scenery, from baseline to projected, from various public and occupied points within the Study Area.

1.6.13 Cultural Resources

Issue:
Cultural resource sites may be impacted in the Project Area.

Indicators:
Number of cultural sites eligible for the National Register of Historic Places (NRHP) impacted by the Project.

Issue:
The heritage values (resources) of the Project Area may be compromised by the Project.

Indicators:
Acres to be removed from historic land uses with local heritage value, and duration of the mining activities.

1.6.14 Treaty Rights Resources

Issue:
The Project activities may impact the ability of Shoshone Bannock tribal members to exercise their treaty rights in the Project Area and may impact resources of cultural significance to tribal members.

Indicators:
Changes in water quality and quantity of both surface and groundwater;

Acres and types of vegetation disturbed versus acres and types of vegetation replanted;

Acres of wetlands disturbed;

Acres of wildlife habitat disturbed;

Increased uptake by wildlife and vegetation of contaminants of concern in mining disturbed areas and areas that are reclaimed;

Changes in types of aquatic resources and comparison with undisturbed habitats in the Project Area;

Acres of access and recreation areas that would be available or unavailable and the duration of mining activities;

Visibility of disturbances to adjoining areas;

Known prehistoric cultural resources sites impacted by the Project.

Issue:
The Project would diminish the locations available to exercise Treaty Rights.

Indicator:
Change in land status and accessibility.

1.6.15 Transportation

Issue:
Use of public roads in the Project Area for mine access may affect current traffic characteristics of the roads with increased risk of accidents and potential for spills.

Indicators:
Relative increase in traffic on public roads in the Project Area as a result of proposed mining activities, change in traffic types, and road design features to deal with this;

Changes in existing primary access to and through the CTNF on county or open USFS roads caused by the mining and associated activities.

1.6.16 Social and Economic Resources

Issue:
The heritage values of the Project Area may be compromised by the Project.

Indicators:
Acres to be removed from historic land uses with local heritage value, and duration of the mining activities.

Issue:
Noise effects from mine operations, mine traffic along haul roads, and traffic on access roads may affect area residents.

Indicators:
Estimated noise levels from mining operations, haul truck traffic related to mining and access road traffic.

Issue:
Potential closure of mine and effects on the local economy.

Indicators:
Numbers of employees, contractors, and their dependents that could be affected by potential mine and fertilizer plant closure and loss of personal/public income. Appropriate multipliers would be used to estimate economic and social impacts.

Issue:
Potential closure of the mine, resulting in decreased domestic phosphate production, effect of reduced fertilizer supply, increased price on national agriculture, and increased foreign natural resource dependence.

Indicators:
Percentage of U.S. phosphate fertilizer market derived from Don Plant production and ability of other domestic and foreign sources to satisfy this demand, if necessary.

Issue:
Chemical degradation of water, soil, and vegetation in the Project Area may impact local farmers and compromise the viability of their farms/ranches in terms of both agribusiness and tourism.

Indicators:
Predicted levels of any offsite contamination of water, soil, and vegetation of farms and ranches within the Project Area with emphasis on compliance with applicable standards.

Issue:
Nearby property values may be changed by proximity of mine and transportation activities.

Indicators:
Relative potential change of property values from mining operations in the area and potential change in property values within the Star Valley if mining were to cease.

1.6.17 Environmental Justice

Issue:
Reducing or limiting hunting and/or gathering opportunities (i.e. ability to exercise treaty rights) and/or access to resources affects the Tribes adversely, even if temporarily.

Indicators:
Inability to exercise treaty rights or access treaty resources;

Impacts to treaty resources.

Issue:
Increased health risks due to consumption of water, fish, and wildlife.

Indicator:
Exceedances above standards for human health of selenium in water, fish, and wildlife.

1.7 Additional Information

The DEIS for the Project was completed and issued to the public in December 2005. Since then a number of changes have been made in the FEIS in response to Agency, Shoshone-Bannock Tribes, and public comments on the DEIS and to incorporate new information that has become available since the DEIS was issued for public review. The responses to comments in Chapter 7 of this FEIS provide descriptions of specific changes made in response to comments on the DEIS. Certain general types of changes and additional information added to the EIS are described below.

Surface Water Data
The DEIS incorporated available surface water data up to 2005. Ongoing surface water monitoring data conducted in the Study Area by contractors working under Agency approved study plans from 2005 through January 2007 have been added to this FEIS and incorporated into the impact analysis. This includes recent surface water data showing increases in selenium at South Fork Sage Creek Springs. This recent increase is further described in **Section 4.3**, **Section 5.4**, and **Appendix 2A**. Additionally, information and data provided by Greater Yellowstone Coalition for sampling conducted for them in 2005 and 2006 in the general area were included herein.

The major surface water conclusions in the DEIS were: 1) Crow Creek and Deer Creek carry low baseline concentrations of selenium below the chronic cold water criterion; 2) existing selenium concentrations in lower Sage Creek are seasonally greater than the criterion because of existing mining operations at Smoky Canyon Mine; 3) selenium concentrations in Crow Creek downstream of Sage Creek are increased because of Sage Creek, but are below the criterion; 4) the mitigation measures proposed for Panels F and G are predicted to result in direct impacts to surface water quality that are less than the criterion, and these peak concentrations are predicted not to occur for 50 to 100 years in the future; 5) when added to the existing impacted water quality in lower Sage Creek, the mitigated impacts from Panels F and G would add to the existing exceedances of the criterion; but, 6) when added to the expected future (post-mining and closure) concentrations in lower Sage Creek, the mitigated impacts are predicted to not exceed the criterion. The new surface water data added to this FEIS do not change any of the above major baseline and impact conclusions from the DEIS, and have not had a bearing on the selection of the Agency Preferred Alternative.

Fisheries Selenium Data
The DEIS used the available data through 2005 on selenium concentrations in fish and other aquatic media within the Study Area. Since the DEIS was written, additional data has been obtained from contractors following study plans approved by the Agencies, and from the Greater Yellowstone Coalition, who followed a different set of protocols independent of the Agencies. These data have been incorporated into this FEIS and the impact analysis was re-evaluated with the updated information. These data showed elevated selenium levels in fish tissue and certain other environmental media within certain Study Area streams; both in watersheds that are impacted by past phosphate mining and others that have not been impacted by phosphate mining. In the revised impact analysis in the FEIS, these new data did not change the prediction of potential selenium impacts to cutthroat trout and other native fish that were disclosed in the DEIS.

In addition, commenters on the DEIS have subsequently submitted a number of technical papers on the subject of interpretation of selenium data in aquatic habitats. These and other literature sources of information have been summarized and objectively evaluated in a new appendix to this FEIS, the results of which have been incorporated into the impact analysis section of the FEIS. These new literature sources did not substantially effect the Agencies' conclusions relevant to the compliance of the Project with legal applicable standards. The conclusion in this FEIS, that predicted impacts to downstream water quality would comply with applicable State and federal cold water criterion for selenium (established for protection of aquatic life), is essentially the same as in the DEIS. The main difference between the conclusions in the two EISs (draft and final) is that the FEIS prediction shows a greater margin between the predicted impacts and the applicable standard.

303(d) Designation

When the DEIS was written, the 303(d) list of impaired streams in effect in Idaho was the one resulting from the 1998 Integrated Report by the IDEQ. The DEIS also disclosed that the 2002/2003 Draft Integrated Report proposed listing the Sage Creek watershed as impaired for selenium and parts of the Deer Creek watershed as impaired for sediment. The DEIS described the potential impacts of the Agency Preferred Alternative on surface water quality, i.e., increases in selenium in Sage Creek watershed and increased sediment in Deer Creek, and concluded that these impacts would be in compliance with applicable State surface water quality regulations. In December 2005, after the release of the DEIS for public comment, the EPA approved the recommendations in the 2002/2003 Integrated Report and the 303(d) list was revised to include Sage Creek and parts of Deer Creek as impaired for selenium and sediment, respectively. This change in regulatory status is discussed in this FEIS, which again describes expected increases in selenium in Sage Creek and sediment in Deer Creek. The FEIS also includes specific new discussion on the applicability of the latest 303(d) listing to these Project impacts and arrives at the same conclusion as in the DEIS, i.e., the projected impacts would comply with State surface water quality regulations and the Clean Water Act.

Roadless Area Conservation Rule Regulation

When the DEIS was released, the 2001 Roadless Area Conservation Rule (RACR) was not in effect due to a U. S. District Court for the District of Wyoming decision on July 14, 2003 and the Agency Preferred Alternative complied with applicable Forest Service rules and policy on Inventoried Roadless Areas (IRAs). The DEIS evaluated the potential impacts of the proposed mining activities and alternatives on roadless area characteristics and wilderness attributes. The Agencies included in the Agency Preferred Alternative of the DEIS: construction of haul/access roads across IRAs to the Panels F and G phosphate leases; mining operations within these existing phosphate leases; issuing lease modifications for the Panel F lease, and; mining operations in the proposed lease modifications. On September 19, 2006, the RACR was reinstated by a U. S. District Court for the Northern District of California decision and is now in effect as this FEIS is written. As a result of the judicial reinstatement of the RACR, which occurred after the DEIS was released, the FEIS has included additional impact analysis regarding roadless characteristics and wilderness attributes. The analysis did not indicate a change in the conclusions in the DEIS, except for in the South Lease Modification area.

Mining Alternative D

The Agency Preferred Alternative in the DEIS included Alternative D, which was a cover design utilizing topsoil, chert, and Dinwoody formation clay-rich shale intended to be placed over all areas of seleniferous overburden fills at Panels F and G to limit net percolation of water through

the overburden. This would reduce the loading of COPCs leached from the overburden in seepage that would eventually enter the underlying Wells formation aquifer. In response to comments on the DEIS, the Agencies and Simplot mutually decided to revise this cover design to reduce the net percolation of water to a greater extent than was evaluated in the DEIS. The revised cover design described in this FEIS still uses the same construction materials as were proposed in the DEIS, but changes the configuration in the cover to enhance the store and release capability of the materials instead of reliance on an infiltration barrier approach. The net effect of this change in design is lower net percolation rates through the cover resulting in less loading of COPCs to the groundwater and a commensurate lowering of selenium loading to local surface water bodies. The effects of the new design are within the scope of the impacts displayed in the DEIS and therefore do not constitute a significant change in the FEIS. The Agencies view the design of the cover in this FEIS as being generally equivalent to that described in the DEIS in purpose, extent, and materials of construction. The revised design is superior to that in the DEIS with regards to environmental concerns.

Selenium Attenuation

In the DEIS, the Agencies concluded there was evidence in literature for chemical attenuation of selenium in specific chemical and biological environments, but insufficient evidence was available showing these conditions existed within the modeled subsurface flow path for Panels F and G to incorporate selenium chemical attenuation in the impact assessment. Based on public comments and new field and laboratory findings not available during preparation of the DEIS, the Agencies have adopted a conservative selenium attenuation factor of 15 to 25 percent in groundwater analysis. For comparative purposes, the FEIS also displays analysis with a wider range of selenium attenuation factors, from 0 to 30 percent. The inclusion of selenium attenuation better reflects expected conditions and processes while showing the Agency Preferred Alternative would comply with applicable groundwater and surface water standards. This is the same conclusion as in the DEIS with 0 percent selenium attenuation in groundwater.