

Environmental Assessment
and
Proposed Plan Amendment
to the
Challis Resource Management Plan (RMP) 1999
for a
Recreation and Public Purposes Act Sale of Public Land to Custer County
for a
Municipal Waste Transfer-Recycling Site and Non-Municipal Waste Disposal Site
near Mackay, Idaho

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BUREAU OF LAND MANAGEMENT

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INTRODUCTION

Background

The Custer County Board of Commissioners has requested that the Bureau of Land Management (BLM) sell 360 acres of land at Pete's Creek (approximately nine miles north of the city of Mackay, Idaho) to the county for the purpose of establishing a non-municipal waste site and solid waste transfer-recycling station. This site would include a municipal waste dumpster transfer site, a non-municipal disposal site, and animal disposal site. The first official correspondence regarding this request was a letter received by the BLM on January 22, 2001 requesting permission to dig soil test pits near Pete's Creek approximately nine miles north of the city of Mackay, Idaho. The next request was a Recreation and Public Purpose Patent (R&PP) application for this site received on April 14, 2003. The city of Mackay currently owns a non-municipal solid waste transfer site approximately 40 acres in area. The county believes that the site no longer meets the residents' disposal needs. Therefore, the BLM has analyzed the proposed 360-acre site, an alternative 80-acre site, and the no action alternative.

The waste site would only accept solid waste that is not mixed with waste generated by households or is not specifically excluded from regulation under Idaho's Solid Waste Management Rules. Non-municipal solid waste may include such materials as glass, plastic, wood, roofing materials, sheet rock, and certain quantities of hazardous or pathogenic waste. It does not include wastes that are regulated under separate laws and rules, such as asbestos, certain hazardous wastes, polychlorinated biphenyl (PCB), and radioactive waste (IDEQ, 2005). Non-municipal waste and dead animals would be buried on the site. Household waste would be transported by truck to a landfill facility in Salmon, Idaho. Therefore this facility would be a Tier II, non-municipal, solid waste landfill and a municipal, solid waste transfer site. In this document this facility may be called: waste site, waste transfer site, or non-municipal solid waste transfer or disposal site.

Public and Agency Involvement

The County Commissioners expressed an interest in establishing a new waste transfer site for the Mackay area as early as 1982 (Administrative Record/project file at Challis Field Office). At that time, a waste transfer site committee of eight citizens evaluated five potential sites and outlined the strengths and weakness of each. They narrowed the field of five sites down to three and recommended to the Custer County commissioners that the 'Mackay Reservoir Site', 'Pass Creek Site' and 'Alder Creek Site' be considered for future analyses. In June 2000 another waste transfer site committee composed of six citizens considered the suitability of five sites, only one of which was from the 1982 set of potential sites. This second committee ranked the sites with a numeric value after considering the following attributes: access road length; road improvement needs; distance to electric power; improvements needed to hide the site; physical site conditions for operating site; distance to private land; impact to private land; impact to people; impact to natural beauty; highway travel needed; total distance to Mackay; 100 year impact to the environment; people and recreation; and potential to reclaim site when

closed. As a result of this analysis, a site approximately 1.5 miles northeast of Mackay (hereafter called Mackay NE) was the preferred site with a second choice site located approximately 3 miles east of Mackay near Swauger Gulch (hereafter called Swauger). The other three sites (Pete's Creek, Upper Cedar Creek, Mahogany Creek) did not rank close in numeric value to the two preferred sites and were not recommended by the committee (Challis Field Office files). On August 24, 2000 the County Commissioners reviewed five proposed sites and chose Pete's Creek site as their preferred site. The BLM proceeded to analyze the Pete's Creek Site as a potential transfer site.

The BLM held a public meeting on February 23, 2005 to gather more public input on potential locations for the transfer site. The meeting notes were summarized and the majority of comments (85%) were opposed to the County Commissioners' proposed Pete's Creek site. The primary reasons were the long distance to drive (approximately 18-mile round trip for Mackay residents), the dangerous turn off location on a blind corner with a double yellow line on a 65 mile per hour highway; litter along the highway; locating a waste disposal site in high value wildlife habitat, in a hunting and recreation area, in special status species habitat, and in an aesthetically pleasing mountain setting.

Therefore the BLM interdisciplinary team re-visited the list of potential sites, rejected sites based on previous resource issues and citizens concerns and in the fall of 2005 added another site for analysis: This new site is near the existing Mackay transfer site, hereafter called Site 2.

The BLM published a Notice of Intent in the Federal Register (Jan 19, 2005) to amend the Challis Resource Management Plan (1999, BLM) to dispose of public land for a solid waste disposal and transfer area near Mackay, Idaho. In addition to soliciting comments on the proposed Plan Amendment, the notice segregated the proposed sale area from appropriation under the public land laws, including the mining laws.

The next step in the plan amendment process involves the preparation of an Environmental Assessment, a recommendation to the District Manager, and a decision to proceed with or reject the proposal. If a favorable recommendation is made by the District Manager, these documents will be forwarded to the BLM's Idaho State Director. The BLM Idaho State Office will transmit the proposed plan amendment to the Governor of the State of Idaho for a 60-day consistency review. Simultaneously, copies will be provided to appropriate publics. At the end of the Governor's review period the State Director may sign the proposed amendment.

Upon approval of the Proposed Plan Amendment by the State Director, a Notice of Realty Action (NORA) will be published in the Federal Register. This provides a 30-day period for those adversely affected to protest the plan amendment to the Director and a 45-day comment period to the District Manager on the NORA.

Three alternatives will be analyzed in this Environmental Assessment. Pete's Creek, (Site 1) the site proposed by the Custer County Commissioners, will be analyzed as Alternative

1, and the lands near the existing Mackay transfer site (Site 2) will be analyzed as Alternative 2 throughout this document. The third alternative is the No Action alternative.

Type of Action

The action to be considered is an amendment to the Challis Resource Management Plan to dispose of public land under the Recreation and Public Purpose Act (43 CFR 2743.2-1) for municipal waste dumpster transfer site, a non-municipal disposal site, and animal disposal site near Mackay, Idaho.

Purpose and Need for Proposed and Alternative Actions

The purpose of the amendment to the Challis Resource Area's Resource Management Plan is to allow the sale of public land to enable Custer County to meet the needs of county residents for the proper disposal of current and future solid wastes. BLM would accomplish this by selling a parcel of land to the County. The need has been established by the County, which has deemed that they have outgrown the waste site capacity at the existing Mackay city-owned waste site.

Location of Proposed and Alternative Sites

The Pete's Creek Site, Site 1, is comprised of 360 acres of BLM lands that Custer County has proposed to purchase. Site 1 is located approximately eight miles north of Mackay on the east side of Highway 93 (Fig. 1). The area consists of rolling hills at the base of the Lost River mountain range. The legal description for these lands is the following: B.M., T. 8 N., R. 23 E., Section 34, NE $\frac{1}{4}$ NW $\frac{1}{4}$, and Section 27, SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, and NE $\frac{1}{4}$.

Eighty acres have been identified for Site 2. Site 2 is near the existing non-municipal waste transfer site approximately one mile from Mackay, Idaho and is described as the following: B.M., T. 7 N., R. 24 E. Section 22, W $\frac{1}{2}$ SE $\frac{1}{4}$ (Fig. 2).

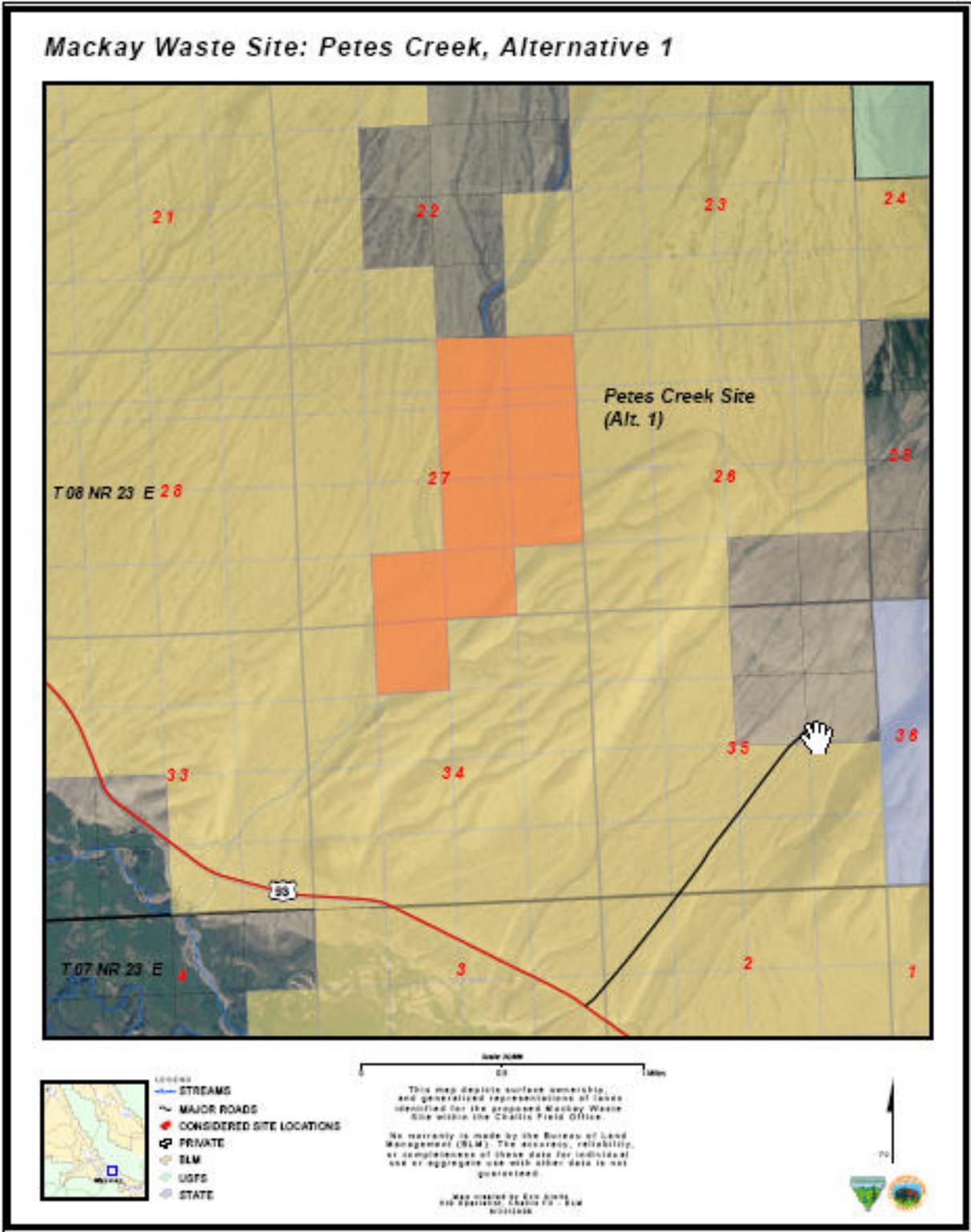


Figure 1. The shaded area in Sections 27 and 34 show the 360 acres near Pete’s Creek (Site 1 or Alternative 1) for a proposed waste transfer site. This area was proposed by the Custer County Commissioners.

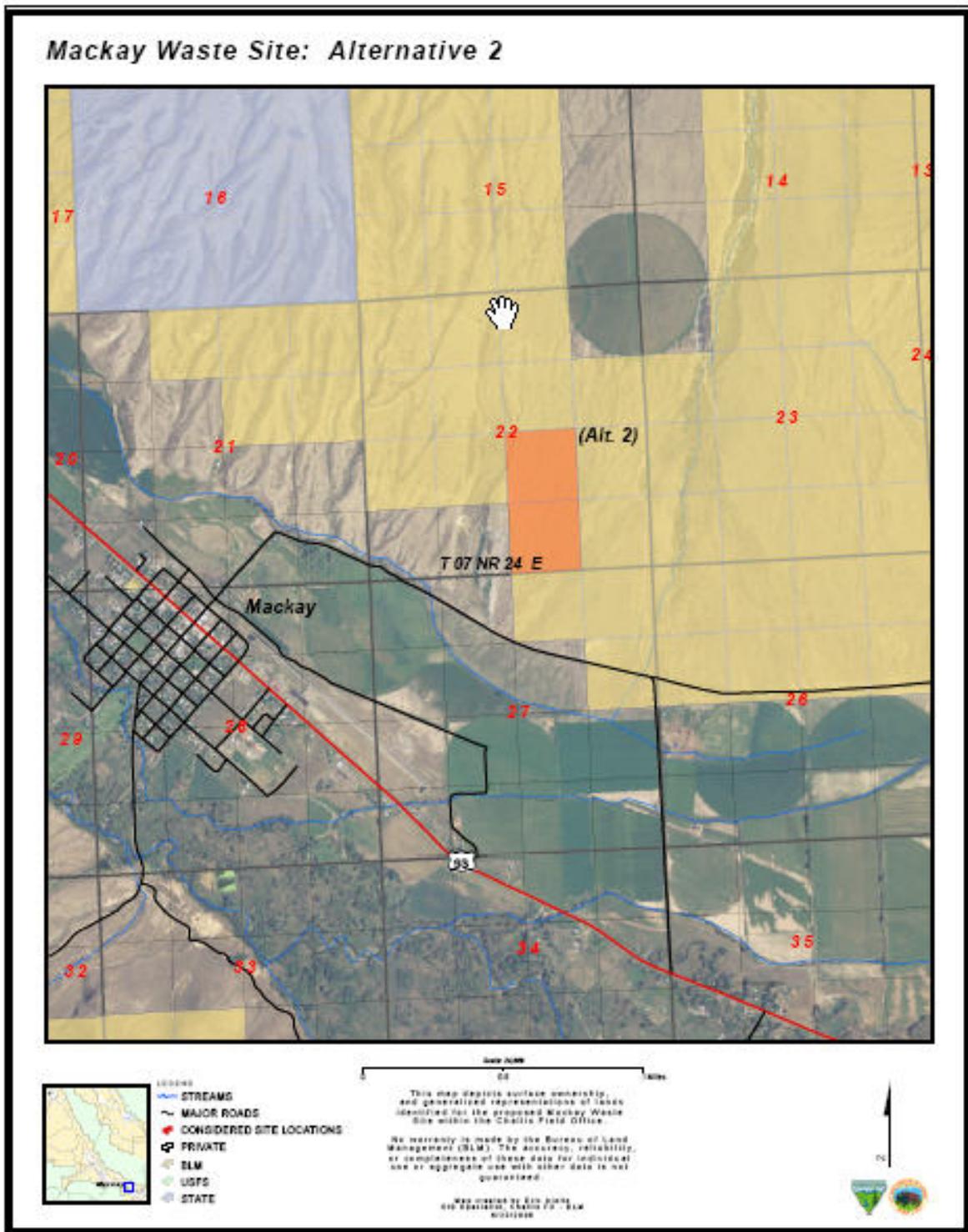


Figure 2. The shaded area in Section 22 shows 80 acres near the existing Mackay waste site (Alternative 2) under consideration for disposal for waste transfer site.

Conformance with Applicable Land Use Plans

The parcel of public land requested for a Recreation and Public Purposes sale by Custer County was not identified for disposal in the Challis Resource Management Plan (RMP) approved July, 1999 and thus would require a plan amendment. Section 203 of P.L. 94-579, dated October 21, 1976 (FLPMA) requires that proposed public land sale parcels be identified in an approved land use plan. BLM planning regulations found at 43 CFR 1610.5-3 also require that resource management actions be in conformance with approved land use plans. The process to amend the RMP was initiated through a Notice of Intent to Prepare a Land Use Plan Amendment to provide for disposal of public land for a waste transfer site [FR Vol. 70 No.12, 3061, January 19, 2005]. In order to consider Custer County's sale request, an amendment to the Challis RMP must be prepared. This document constitutes the land use plan amendment.

Relationship to Statutes, Regulations or Other Plans

The proposed land sale would be authorized by the Recreation and Public Purposes Act of June 14, 1926, as amended, (43 U.S.C. 869 *et seq.*) and would be in accordance with federal regulations at 43 Code of Federal Regulations (CFR) 2740. The act authorizes the sale or lease of public lands for recreational or public purposes to state and local governments and to qualified non-profit organizations. The amount of land an applicant can purchase is set by law: whether the land is to be purchased or leased, the BLM would classify for purposes of the act only the amount of land required for efficient operation of the projects described in an applicant's development plan. The sale of the subject lands also would be made in accordance with 43 CFR Subpart 2743, entitled Recreation and Public Purposes Act: Solid Waste Disposal which includes the following patent provisions for new disposal sites.

§2743.2-1 Patent provisions for new disposal sites

For new disposal sites, each patent will provide that: (a) The patentee shall comply with all Federal and State laws applicable to the disposal, placement, or release of hazardous substances; (b) the patentee shall indemnify and hold harmless the United States against any legal liability or future costs that may arise out of any violation such laws; (c) Except as provided in paragraph (e) of this section, the land conveyed under §2743.2 of this part shall revert to the United States unless substantially used in accordance with an approved plan and schedule of development on or before the date five years after the date of conveyance; (d) If at any time, the patentee transfers to another party ownership of any portion of the land not used for the purpose(s) specified in the application and the approved plan of development, the patentee shall pay the Bureau of Land Management the fair market value, as determined by the authorized officer, of the transferred portion at the date of transfer, including the value of any improvements thereon; and (e) No portion of the land covered by such patent shall under any circumstance revert to the United States if such portion has been used for solid waste disposal or for any other purpose that the authorized officer determines may result in the disposal, placement, or release of any hazardous substance.

The Fort Bridger Treaty of 1868 (15 Stat. 673) specifically reserves the rights of the Shoshone and Bannock people to hunt, fish and gather natural resources located on unoccupied lands. The Bureau of Land Management has a Federal trust responsibility to

honor treaty rights and to make land management decisions and take actions that do not harm or abrogate treaty rights, treaty resources, or other tribal interests. Part of the Federal trust responsibility entails conducting government to government consultation with Indian groups when a project has the potential to impact the exercise of treaty reserved rights. The BLM's responsibility to consult and coordinate with Indian Tribal Governments is further clarified in Executive Order 13175 of November 6, 2000.

In accordance with the FLPMA (43 USC 1701(a)(9), (a)(12)) and the Mining and Minerals Policy Act of 1970 (30 USC 21a), a mineral potential report for land considered under Alternative 2 was completed on June 12, 2006. The report concludes that the land has no known mineral values, apart from sand, gravel and fill which are of nominal value with negligible probability of development in the foreseeable future (40 years). The land has low to no potential for locatable minerals, moderate to low potential for leasable minerals, and moderate to low potential for salable minerals besides those known at the land. Regardless, all mineral deposits and the right to mine and remove such deposits are reserved to the United States for all land conveyed under the authority of the Recreation and Public Purposes Act (43 USC 869-1(d)). Hence, the proposed plan amendment would cause negligible impacts to mineral resources, which are not discussed further in this environmental analysis.

The Clean Water Act, Section 303, requires the identification of impaired surface waters. Under the Clean Water Act, Section 303(d), impaired streams within the State are identified and reviewed by the Idaho Department of Environmental Quality for maximum allowable pollutant load using the Total Maximum Daily Load (TMDL) protocol.

The Clean Air Act of 1970 is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. Though this law, the U.S. Environmental Protection Agency is authorized to establish National Ambient Air Quality Standards to protect public health and the environment.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) under Section 120 (h), requires that deed transfers of U. S. Government-owned properties to other parties ensure that contaminated property undergo all necessary remedial actions before being conveyed outside the federal government. CERCLA 120(h)(3) requires that deeds transferring property where hazardous substances have been stored for more than one year, released, or disposed of shall contain a covenant warranting that: "all remedial action necessary to protect human health and the environment with respect to any [hazardous] substance remaining on the property has been taken before the date of such transfer."

The National Historic Preservation Act of 1966, as amended (NHPA; with regulations under 36 CFR 800) established the federal government's policy and programs on historic preservation. Section 106 of NHPA requires agencies to consider the effects of their actions on historic properties (defined as cultural resources determined to be eligible for listing on the National Register of Historic Places) prior to project implementation. The NHPA specifically requires Federal agencies to identify and manage historic properties

on federally owned and managed lands. The transfer of lands from Federal to private ownership is recognized as having an adverse effect on any National Register-eligible historic properties located on those Federal lands.

The BLM follows procedures outlined in the 8100 Manual series to comply with Section 106 of the National Historic Preservation Act, and consults with the Advisory Council and State Historic Preservation Officer (SHPOs) as outlined in the 1997 BLM National Programmatic Agreement and Idaho State protocols. The BLM's legal requirements under 8100 direction include the identification of potentially affected tribes, and the initiation and consultation with Indian tribes about proposed undertakings. BLM responsibilities include insuring that tribal information on tribal religious and cultural issues receives good faith consideration during decision-making, and that BLM decisions do not unduly or unnecessarily burden the pursuit of traditional religious or cultural practices (BLM Manual 8120.06(F)).

PROPOSED ACTION AND ALTERNATIVE

Common to both the proposed action and alternative is that the lands considered would be segregated from all other forms of appropriation under the public land laws, including the general mining laws, except for lease or conveyance under the Recreation and Public Purposes Act and leasing under the mineral leasing laws.

Alternative 1: Proposed Action: Pete's Creek (Site 1)

The proposed action is a land plan amendment to allow the direct R&PP sale of 360 acres of public land near Pete's Creek to Custer County for use as a municipal solid waste transfer site and a non-municipal waste disposal site. This proposal came from the Custer County Commissioners, Challis, Idaho.

Alternative 2: Lands Near the Existing Mackay Area Waste Transfer Site (Site 2)

The alternative action is a land plan amendment to allow the direct R&PP Act sale of 80 acres of public land to Custer County for use as a municipal solid waste transfer and a non-municipal waste disposal site. This land nearly borders, and is north and east of the existing Mackay transfer site. This alternative was developed after considering the ranking of sites by the citizens group of 2000, the comments received at the public meeting in 2005, and by two BLM inter-disciplinary teams' recommendations. It was chosen because public scoping and BLM personnel identified the common requirement that a transfer site be located close to the town of Mackay and nearby the existing, already-disturbed waste facility.

Alternative 3: No Action Alternative

Under the no action alternative, the city of Mackay would continue to operate their transfer site. Custer County would have to explore alternative sites for future needs.

Alternatives Considered but not Analyzed in Detail

Several alternative sites were evaluated for the waste transfer site by citizens groups in 1982 and 2000 and by a BLM interdisciplinary team in 2005. Both the BLM

interdisciplinary team and the Mackay citizens group from 2000 used ‘decision analysis’ to rank five sites. Decision analysis was used because there was a shared need for a waste transfer site, and there was a need to generate options. For the decision analysis, the BLM interdisciplinary team identified 10 criteria that should be considered in determining the suitability of a potential transfer site. The criteria were: distance to Highway 93, distance to home sites, distance to private land, the view from US Highway 93, distance to Mackay, distance to sage grouse leks, distance to sage grouse winter habitat, distance to crucial mule deer habitat, distance to existing transfer site, distance to BLM lands identified for disposal. These criteria were ranked by BLM specialists on a scale of 1-10 and weighted on a scale of 0-100%. The results were analyzed in ArcGIS to spatially depict the most suitable sites for a transfer site (map on file at Challis Field Office). The results from this analysis and from the citizen’s analysis were similar; the preferred sites were those closest to Mackay, and were sites that were not in visual contrast with the Lost River Range.

AFFECTED ENVIRONMENT

The affected environment of both potential waste transfer sites will be discussed in this section. As noted previously, Pete’s Creek Site will be called Site 1 and the land near the existing Mackay transfer site will be called Site 2 throughout this document.

General Setting

Both Site 1 and Site 2 are on the east slope of the Lost River Range. Both sites are located on reworked glacial deposits of limestone origin. The general topography is sloped 5-20% with numerous ephemeral drainage incisions of varying sizes. The vegetation is characterized as sagebrush steppe.

The elevation of the Site 1 ranges from 6380 to 6820 feet. The elevation of Site 2 ranges from 6010 to 6141 feet. Total annual precipitation for the Mackay area has averaged 9.45 inches for the period from 1931 to 2005. Precipitation occurs primarily during the winter months as snow with some rain in the spring and summer months. Common high temperatures range from 85 – 90 degrees Fahrenheit.

Site 1 is approximately nine miles northwest of Mackay, and Site 2 is approximately 0.75 miles southeast of Mackay (Fig. 3).

No federally listed, proposed or candidate terrestrial wildlife or aquatic species are documented in habitats associated with either of the considered sites. There are no Canada lynx (*Lynx canadensis*) analysis units or designated linkage areas in close proximity to this project. While gray wolf (*Canis lupus*) activities occur in the Big Lost River area, there is no recognized gray wolf pack territory or known denning site associated with either of the considered sites. Terrestrial wildlife protected under the Endangered Species Act of 1973, as amended, are not considered further in this Environmental Assessment.

Access to the selected site would be reserved across public lands through a Right-of-Way. Further NEPA analysis would be done for such action.

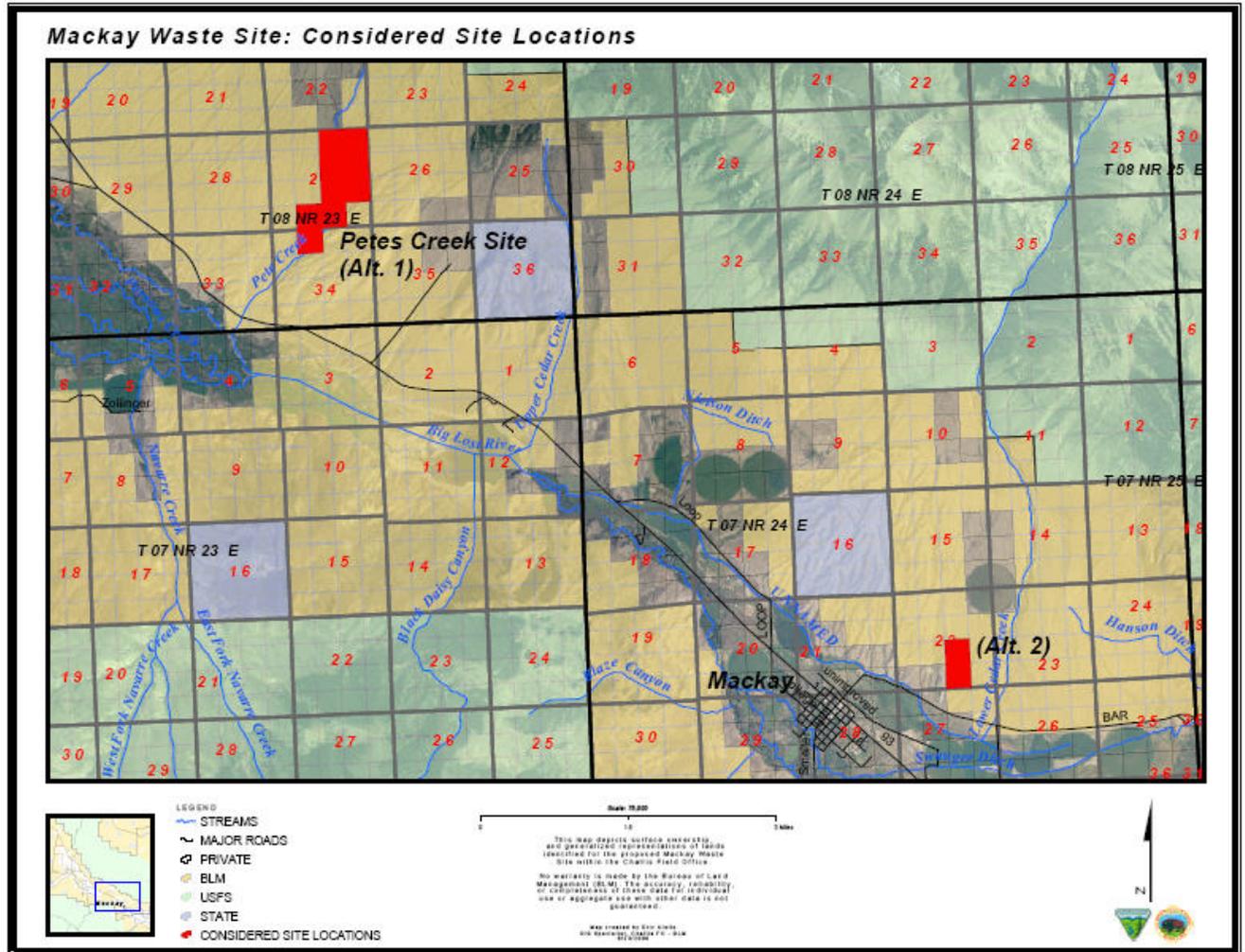


Figure 3. Two potential locations (shaded areas) for a Waste Site are shown near the town of Mackay, Idaho. The shaded area in section 27 and 34 is the proposed Pete’s Creek Site. The shaded area in section 22 is Site 2 (Alternative 2). See figures one and two for an enlarged map of each site.

Critical Elements of the Human Environment

The following elements of the human environment are subject to requirements specified in treaty, statute, regulation, or executive order and must be considered in all environmental assessments. All the following elements have been analyzed. Elements denoted by an “X” in the *not affected* column are not affected by the proposed action or alternatives and will receive no further consideration.

Critical Elements	Not Affected	Affected
Air Quality		X
Areas of Critical Environmental Concern	X	
Cultural Resources	X	
Environmental Justice (EO 12989) (minority and low-income populations)	X	
Farm Lands (prime or unique)	X	
Floodplains	X	
Invasive, Non-native Species	X	
Migratory Birds		X
Native American Religious Concerns	X	
Threatened/Endangered Plants; Sensitive Plants	X	
Threatened/Endangered Fish; Sensitive Fish	X	
Threatened/Endangered Animals; Sensitive Animals		X
Wastes, Hazardous or Solid		X
Water Quality – Surface		X
Wetlands/Riparian Zones (including uplands)	X	
Wilderness	X	
Wild & Scenic Rivers	X	
Tribal Treaty Rights		X

OTHER IMPORTANT ELEMENTS OF THE HUMAN ENVIRONMENT		
The elements of the environment listed below are not included on the “critical elements” list, but are important to consider in assessing all impacts of the proposal(s). All the following elements have been analyzed. Elements denoted by an “X” in the <i>not affected</i> column are not affected by the proposed action or alternatives and will receive no further consideration.		
Other Important Elements	Not Affected	Affected
Paleontological Resources	X	
Indian Trust Resources	X	
Availability of Access/Need to Reserve Access		X
Wildlife		X
Recreation Use, Existing and Potential		X
Existing and Potential Land Uses		X
Vegetation types, communities; vegetative permits and sales; Rangeland resources		X
Fisheries	X	
Forest Resources	X	
Soils		X
Wild Horse and Burro Designated Herd Management Areas	X	
Visual Resources		X
Economic & Social Values		X
Mineral Resources	X	

Tribal Treaty Rights and the Federal Trust Responsibility

Federal trust responsibility is a concept that comes from early Supreme Court decisions that sought to interpret Indian treaties and to determine the relationship between Indian tribes, Indian property rights, and the federal government. Through the making of treaties, Indian tribes gave up land in exchange for promises from the federal government. The tribes trusted that the federal government would fulfill its promises, and the government thereby incurred a duty to protect the best interests of the tribes. As a land and resource manager, the BLM has a trust responsibility to honor treaty rights and make land management decisions and take actions that do not harm or abrogate treaty rights. The BLM must do this while still meeting its regulatory and management responsibilities to all of the nation’s people.

In keeping with the Federal trust responsibility that the BLM has to tribes, the Challis Field Office BLM has initiated government-to-government consultation with the

Shoshone-Bannock Tribes regarding the sale of federal lands to Custer County for use as a waste transfer site. The BLM acknowledges that the Tribes oppose any federal land sales to private entities or to state and local governments because of their potential to impact reserved tribal treaty rights.

The Shoshone-Bannock Tribes, during the negotiation of the Fort Bridger Treaty of 1869, reserved the right to use the unoccupied lands that comprise the Challis Field Office area for hunting, fishing and gathering. Information received from the Shoshone-Bannock Tribes indicates that Tribal members use the greater Mackay area for hunting and gathering, including Site 1 and Site 2.

Air Quality

Under the Clean Air Act, all Challis Field Office (CFO) area administered lands were given PSD Class II status. Air quality in the CFO area is generally believed to be excellent, because of the remoteness of the area's geographic location in east-central Idaho. Some air quality degradation occurs within the area, but is usually seasonal and short-term. None of the CFO area is classified as a "non-attainment" area with respect to Clean Air Act standards.

In the spring and summer months, periods of smoke haze may occur when forest or farmland fires are burning locally. Smoke haze can develop when large forest or brush fires are burning in western Idaho, Montana, Nevada, Oregon, Washington, or California. Smoke from such fires is borne on prevailing winds, and results in hazy conditions for a few days to several weeks.

Other minor pollutants include smoke from ditch, slash, and garbage burning, and dust from vehicular traffic on unpaved roads. Many local residents burn their fencerows and ditches once or twice annually in the spring and fall. This burning is not controlled or regulated, except during the fire season, when a burning permit is required by the Idaho Department of Lands.

Cultural Resources

Section 106 of the National Historic Preservation Act (1966, as amended) requires that federal agencies take into account the effects of their actions on historic properties. Impacts to identified cultural resources that meet the eligibility standards for listing on the National Register of Historic Places must be mitigated or avoided. The transfer of lands out of Federal ownership is considered an adverse effect to all historic properties located on those lands.

Effects to recorded historic properties can be assessed once the BLM has applied the National Register criteria to recorded properties and reached agreement with the SHPO on the eligibility of those properties. Once this evaluation is complete, the BLM, in consultation with the Idaho State Historic Preservation Office, will seek ways to avoid adverse effects on recorded historic properties within either Site 1 or Site 2. Such measures might include, but are not limited to, developing plans to avoid impacts to eligible properties, or developing and executing a data recovery plan (excavating the

site). The BLM must complete agreed-upon mitigation or alternatives to reduce identified effects on historic properties prior to completing the ownership transfer of lands where these sites are located.

During intensive pedestrian survey of Site 1, no cultural resources were located. At Site 2, a ditch and numerous piles of household trash dating ca. 1930 to present were recorded.

Existing and Potential Land Uses

Livestock grazing, recreational hunting and fishing, recreational hiking and scenic driving are the primary existing land uses and economic values for Mackay area. The potential sites for land disposal are located within the Mackay Grazing allotment. The Mackay allotment is grazed by 5 permittees for a total of 1582 AUM's (Animal Unit Months) from May 6 – July 4. The allotment is split by a division fence along the Upper Cedar Creek road. Two permittees graze the northwest portion and three permittees graze the southeast pasture. The existing waste disposal site and Site 2 are within the southeast pasture. Site 1, Pete's Creek, is located in the northwest pasture. Site 1 is approximately 2 miles from the nearest residence. Site 2 is approximately 0.5 miles from the nearest residence.

There is one use authorization administered by the Challis Field Office located within the land description of Site 1. It is a 100'-wide, 230kV power line and existing access/maintenance road right-of-way (ROW) held by Bonneville Power Authority (BPA). The power line occupies the N2NE, section 27, T. 8 N., R. 23 E., B.M., and generally lies in a northwesterly to southeasterly orientation. The access/maintenance road occupies the W $\frac{1}{2}$, section 27, T. 8 N., R. 23 E., B.M., and generally lies in a north/south orientation. The ROW is identified by BLM serial number: IDI-22582.

There are two ROW use authorizations located common to the land description of Site 2. The first is another power line access/maintenance road issued to BPA. It is located in the W2W2SE, section 22, T. 7 N., R. 24 E., B.M. The ROW generally lies in a north/south orientation and is the same BLM serial number held by BPA at site 1 (IDI-22582). The second use authorization is a 69kV, 20'-wide, power line held by Lost River Electric Cooperative. The power line occupies the S2SE, section 22, T. 7 N., R. 24 E., B.M. and generally lies in a northwest/southeast orientation. The ROW is identified by BLM serial number: IDI-008603.

Hazardous or Solid Waste

The subject lands have been examined in accordance with Section 120(h) of the Superfund Amendments and Reauthorization Act (SARA) and the BLM new site disposal audit policy (Public Law 99-499, the Superfund Amendments and Reauthorization Act of 1986).

At Site 1 there is no evidence of existing dumped or buried hazardous material.

At Site 2, there has been dumping of household and ranch waste, from the late 1800s to the present day. Between 30 and 50 years ago, waste material was dumped in the lower portions of the parcel, especially along the existing access road. There is no evidence or commonly-known history of waste burial on Site 2. The dumped material may include limited, but unknown, quantities of commercial, industrial, or municipal wastes as defined in the Resource Conservation and Recovery Act of 1976, as amended (42 U. S. C. 6901), and in 40 CFR 261.4 and 261.5. The amount of industrial hazardous waste is probably minimal due to the small industrial base operating in the Mackay area. However, there is no evidence, such as ground staining, vegetation die-off, or collapsed pits of more extensive hazardous material or subsurface dumping.

See attached *New Land Disposal Site Audit, Area Adjacent to the Mackay Waste Transfer Site*, dated May 9, 2006.

Recreation

The Mackay area is located in the mountains of central Idaho and provides opportunities for both unconfined and unstructured recreation as well as developed recreation. Site 1, the Pete's Creek tract, is in a generally undeveloped setting approximately 10 miles northwest of Mackay. The area is located far from metropolitan areas, allowing recreationists the opportunity to enjoy natural appearing surroundings and is utilized for dispersed recreation such as hunting, camping, horseback riding, wildlife viewing, and hiking/backpacking. These activities allow visitors to experience a certain amount of autonomy, escape from the pressures of the daily life, and create opportunities for personal challenge. Benefits resulting from these experiential opportunities are many and include a closer relationship to the natural world, improved health and well being, and greater personal enrichment through involvement with other people who enjoy similar experiences.

There is also a developed campground (paved roads, water and power hookups, vault toilets) located at Mackay Reservoir, Joe T. Fallini Campground, which provides for a more structured recreational experience. Visitors to this campground and to the reservoir in general, participate in recreational activities such as fishing, boating, water-skiing, RV and tent camping, and bird watching. Benefits from these experiential opportunities include bonding with family and friends, greater community ownership of park, recreation, and natural resources, and greater personal enrichment through interaction with others.

Site 2, the land near the existing transfer station, is a rural setting, located outside the Mackay town site with access via the county-owned Bench Road. There is the presence of human development, and a likelihood of interaction with others. Site 2 is little used by recreationists except as access to the base of the Lost River Range.

Visual Resources:

Both Site 1 and Site 2 are located in the Northern Rocky Mountains physiographic province, though dominated by Basin and Range topography, and specifically along the lower slopes of the Lost River Range, near the town of Mackay, Idaho. The valley here

is relatively broad (approximately 10 miles wide), with irrigated pasture lands in the valley bottom, giving way to sagebrush dominated alluvial fans, and finally to the steep and barren Lost River Range. The mountains are the dominant feature in this valley. Mt. Borah the highest peak in Idaho (12,662 feet elevation) occurs in this range.

Both potential waste disposal sites are located east of Highway 93 with Site 2 located on the outskirts of the city of Mackay, and Site 1 located approximately 9 miles north.

Site 1, located at Pete's Creek, has scattered range improvements (troughs, pipelines, fences) and infrequent two track roads accounting for the existing structural components of the area. They are few and far between and not evident to the casual observer. Site 1 is slightly superior in view in relation to Highway 93, with the nearest point approximately $\frac{3}{4}$ mile to the north of the highway. Site 1 is in view from the highway for approximately 5 seconds

At Site 2, located near the existing Mackay transfer station, residential rural properties (improved roads, power lines, homes, outbuildings, fences, etc..) are scattered along the Bench Road, becoming more densely situated closer to town. These elements make up the dominant structural element to the existing landscape. Site 2 is situated superior (above) in view in relation to the Bench Road and approximately $\frac{1}{4}$ mile north of the road and the nearest residence. Site 2 is in view from the Bench Road for approximately 20 seconds. Site 2 is visible from Highway 93, though it is approximately 1 mile to the north.

Both Site 1 and Site 2 are located in areas with a Visual Resource Management (VRM) Class II designation. The visual management objective of Class II –designated lands is to design proposed alterations so as to partially retain the existing character of the landscape. Management activities may be seen, but should not attract the attention of the casual observer.

Social and Economic Values

Custer County Idaho has approximately 4,090 residents in an area of 4,925 square miles. Most residents are concentrated near towns, primarily Challis, Mackay, and Stanley. Mackay supports a variety of local business centered on ranching, outdoor recreation tourism, government (public lands management and research), and small businesses.

Soils

Soils in the two sites are similar; both are generated from alluvial limestone material. Surface soils at both sites are coarse textured, containing abundant gravels and cobbles, and abundant rock fragments are common throughout the soil profiles. Duripans, calcic horizons within the soil column, are found in some areas within the soils of both sites, and are associated with limestone parent materials. Permeability is generally moderate with a slower rate above such sub-surface calcic horizons. In some areas permeability is very rapid below the calcic horizons, found 12" - 46" below the surface. Soil erosion hazards at the two sites are slight to moderate.

Vegetation Resources

On both sites the dominant vegetation types are sagebrush/grass communities commonly comprised of Wyoming big sagebrush with bluebunch wheatgrass, bluegrass, needle-and-thread grass, and squirreltail grass. Communities of low sagebrush are also common with similar grass compositions. Shadscale communities occupy the drier uplands along the lower river terraces. This salt shrub is usually associated with dropseed, Indian ricegrass, and needle-and-thread grass. There are no known populations of BLM designated sensitive plants or state noxious weeds at locations proposed for either alternative.

Wildlife

BLM Sensitive Species: The following Table identifies terrestrial wildlife species that BLM designates as “sensitive” and which could be associated with either or both of the considered sites.

Table __

Common Name	Scientific Name
Pygmy rabbit	<i>Brachylagus idahoensis</i>
Greater sage-grouse	<i>Centrocercus urophasianus</i>
Peregrine falcon	<i>Falco peregrinus anatum</i>
Prairie falcon	<i>Falco mexicanus</i>
Ferruginous hawk	<i>Buteo regalis</i>
Loggerhead shrike	<i>Lanius ludovicianus</i>
Sage sparrow	<i>Amphispiza belli</i>
Brewer’s sparrow	<i>Spizella breweri</i>

A survey for pygmy rabbits was conducted by Hadley Roberts in 1998 (Roberts 2001) that included areas around both of the considered sites. In Roberts (2001), the closest reported location of “current or recent” activities was approximately 1.0 mile from the Site 1 and approximately 2.75 miles from Site 2. In 2003, a survey was conducted in the lower portion of Site 1 by Tom Hearne (a volunteer employee for Challis-BLM) under the direction of Jerry Gregson, BLM Wildlife Biologist; “two locations of probably [sic] pygmy rabbit use were located.” In 2006, the Idaho Department of Fish and Game (IDFG), in cooperation with BLM, conducted another pygmy rabbit survey around both of the considered sites. Again, no pygmy rabbit activities were documented around Site 2. Seven locations within Section 27 of the Pete’s Creek drainage were identified as having pygmy rabbit activity; five of these locations are within the boundary of Site 1. In personal communications with Beth Waterbury (non-game wildlife biologist, IDFG-Salmon 2006), she stated that the pygmy rabbit pellet density in the Pete’s Creek drainage was the highest she had observed.

Greater sage-grouse lek (strutting) activities are an issue around both of the considered sites. IDFG records of lek surveys have activities in the Pete’s Creek drainage most recently for 2002 and 2004, and near the existing Mackay transfer site for 2003. The current BLM-Challis Geographic Information System (GIS) identifies another lek immediately near the existing Mackay transfer site but metadata do not provide specific references to the date(s) of record or other important characteristics to support a lek designation. Observations conducting during the 2006 breeding season did not confirm

the existence of a lek at the noted location which is within 400 feet of a powerline and 0.25-mile of a paved road; both the powerline and paved road diminish the suitability of the area for lek activity. In late March 2006, greater sage-grouse (numbering >25 birds) were reported within 0.25-mile north of the existing Mackay transfer site which is within the boundary of Site 2. A follow-up check in four days found five males but during three subsequent observations made through April 2006 (at weekly intervals) no birds were documented; during each observation a corresponding check was made of activities at the known "Dump Lek" (which is ~ 0.75-mile from the existing Mackay transfer site and ~0.4-mile from the north-edge boundary of Site 2) and the lek was "active." A surface inspection of the "potential lek" indicated a light use of the area by greater sage-grouse males; it was determined that the location likely was not an established lek, or even a satellite of the known Dump Lek. In relation to Site 2, a report prepared by Mike Foster (U.S. Forest Service) in 2002 mentioned the Dump Lek as having sage-grouse activity; neither the fore mentioned lek on the east or the area of activity on the north of the existing transfer station were cited by Foster. The area of Site 2 consists of low sagebrush, not suitable for nesting habitat. The best source of brood-rearing habitat is provided by the surrounding irrigated fields. The Dump Lek would be buffered from Site 2 by land contours.

The closest of two leks near Site 1 (in GIS) is approximately 400 feet from a boundary line but is out of a direct line-of-sight due to land contours. Greater sage-grouse sign is scattered throughout the Pete's Creek drainage but this likely is more associated with winter-use than for nesting habitat; GIS data identify the Pete's Creek area as greater sage-grouse winter concentration habitat. The survey conducted by Hearne (see pygmy rabbit section) recorded ten locations of greater sage-grouse presence. The nearest suitable brood-rearing habitat would be along the Big Lost River and Mackay Reservoir. Aerial observations in 2006 across the entire alluvial fan between US Highway 93 and the foothills of the Lost River Range found extensive pockets of potential suitable nesting or winter habitats, particularly in small drainages.

Documentation is not on file for observations of the other BLM Sensitive Species in the area of the considered sites. A variety of habitats in or relatively near either or both of the considered locations likely provide suitable avian nesting or foraging opportunities, i.e. cliffs, sagebrush, mountain mahogany, cedar, riparian along the Big Lost River. The Pete's Creek drainage has a greater amount of the mentioned habitats and is more isolated than the existing Mackay transfer site; therefore, Pete's Creek likely has a higher potential for suitable habitats away from human disturbances.

General Wildlife (including Migratory Birds): Per the Challis RMP and GIS, both of the considered sites are within pronghorn antelope (*Antilocapra americana*) winter range. Site 1 is within designated mule deer (*Odocoileus hemionus*) crucial winter range; Site 2 is within approximately 0.5-mile of designated mule deer crucial winter range. Although no specific winter range habitat is identified for elk (*Cervus elaphus*) in these areas, elk were observed within approximately 0.5-mile of the upper most end of Site 1. Much of the alluvial fan is open-country with little relief from climatic elements, particularly the

wind; the Pete's Creek drainage affords important thermal protection for wintering big game.

Observations or evidence of golden eagles (*Aquila chrysaetos*), northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), black-billed magpie (*Pica pica*), jackrabbit (*Lepus spp.*), mountain cottontail rabbit (*Sylvilagus nuttallii*), various rodents (i.e. ground squirrels [*Spermophilus spp.*], least chipmunk [*Tamias minimus*]) have been noted around both considered sites.

Other than previously mentioned, no documentation is on file regarding the presence of migratory birds. In the Pete's Creek drainage, except for a few existing roads the shrub-steppe habitat is fairly intact and should provide suitable nesting and/or protective cover habitats, particularly for sagebrush obligate/facultative species. The area of Site 2 is less vegetated with more two-track disturbance; however, suitable nesting and protective cover is still present, just less abundant and more susceptible to human-traffic disturbance.

Water Quality

Surface Water: Ephemeral drainages from both the proposed site and the alternative site are tributary to the Big Lost River. In the area of Site 1, if Pete's Creek had surface flows for its entire length, the channel would connect to the Big Lost River at the boundary between public and private lands. The Pete's Creek flows generally infiltrate upstream of the confluence, and the channel passes beneath Highway 93 downstream of the proposed site little surface flow reaches the Big Lost River from this ephemeral channel. Deposited sediments within channels indicate movement of fine sand- to pebble-sized material in recent runoff events.

Unnamed ephemeral channels from Site 2 cross private land and pass beneath the Union Pacific railroad tracks, numerous roads and Highway 93 downstream of the alternative site and upstream of its confluence with the Big Lost River. These ephemeral streams generally flow during snow melt runoff events and during high intensity summer rainstorms. Deposited sediments within channels indicate movement of fine sand- to pebble-sized material in recent runoff events.

The Big Lost River, from Chilly Buttes to Mackay Reservoir, was identified on the Idaho 1998 Clean Water Act 303(d) list of impaired streams, with excess nutrients and sediment listed as pollutants. This reach is upstream of the proposed and alternative project sites. The Big Lost River downstream of the proposed and alternative sites, from the Moore Diversion to Highway 20, was also identified on the Idaho 1998 Clean Water Act 303(d) list of impaired streams, with low oxygen, flow alteration, excess nutrients, excess temperature and excess sediment listed as pollutants (IDEQ, 1998). In 2005 the Environmental Protection Agency approved a 2002/2003 updated list of Idaho impaired streams. This approved list included two reaches of the Big Lost River upstream and one reach downstream from the proposed and alternative sites. One listed reach, the Big Lost River from Jones Creek to Mackay Reservoir, is adjacent to Pete's Creek which is tributary to the Big Lost River. This reach of the Big Lost River was listed for nutrients

and sediment. From the 1998 303(d) list of impaired streams, a Total Maximum Daily Load (TMDL) allocation for temperature was developed for the Big Lost River from the source to Chilly Buttes, upstream of the proposed project site (IDEQ, 2004). No TMDLs have yet been developed from the 2002/2003 303(d) list.

The point of discharge for the City of Mackay waste treatment facility and stormwater is downstream of both Site 1 and Site 2, in the Swauger Slough area. An NPDES (National Pollution Discharge Elimination System) permit has been obtained for this discharge.

At Site 1, the Pete's Creek channel is broad, braided, and generally dry. The stream channel exhibits dry, loose sediment deposits that are largely un-vegetated. Pete's Creek divides the Proposed Action site, and the ephemeral drainage channels comprise a large portion of the ground surface of the parcel.

Pete's Creek's occasional surface flows commonly infiltrate into alluvium well above channel confluence with the Big Lost River. Snow melt runoff and water from intense summer rainstorms provide most of the channel flows to Pete's Creek. Stream flow may occasionally connect with the Big Lost River during extreme runoff events.

Available water quality data from Pete's Creek is limited. Much of the data available for the Big Lost subbasin was generated by the Idaho Department of Environmental Quality (IDEQ) during its fulfillment of Clean Water Act (CWA) requirements. IDEQ has identified 'Beneficial Uses' on many streams in Idaho, however, a number of streams have only "presumed" Beneficial Uses identified by IDEQ at this time. Pete's Creek is presumed to offer the following Beneficial Uses: Cold Water, and Primary or Secondary Contact Recreation. Pete's Creek has not been assigned a Total Maximum Daily Load allocation for pollutant reduction. However, the Big Lost River from Chilly Buttes to Mackay Reservoir has been listed on the Idaho Department of Environmental Quality (DEQ) list of impaired water bodies (303(d) list) for nutrients and sediment. During extreme runoff events, some of the loose channel and stream bank sediment could be transported downstream, but it is unlikely that deposition into the Big Lost River would occur more often than very infrequently.

The unnamed ephemeral channels near Site 2 and the existing Mackay Transfer Site exhibit hydrology similar to Pete's Creek, but are narrower and cover a lower percentage of the parcel. The ephemeral channels are generally dry except during snow melt runoff events and intense summer rainstorms. Infiltration occurs in the channel bed, and surface flows of these channels commonly do not reach the Big Lost River.

Upslope of Site 2 there is one pivot-irrigated field. There is slight surface run-off from this field that supports green vegetation for a very short distance downslope from the irrigation site. No surface water is apparently channelized or routinely flows over 100' downslope from this irrigated field. Lower Cedar Creek, approximately 3 miles north of the subject parcel, is very substantially diverted for irrigation into Nielsen Ditch, which passes along the section line to the east of Site 2, between Sections 22 and 23.

Neither parcel is within a FEMA-mapped floodplain.

Groundwater: Depth to groundwater at either of the two sites has not been measured. At both sites there is rapid infiltration of surface water during runoff. Neither site exhibits wetlands, springs, or riparian vegetation.

ENVIRONMENTAL IMPACTS

Impacts of Alternative 1: Proposed Action - Pete's Creek (Site 1)

Air Quality

Currently there is no identified air quality problem at the Pete's Creek site (Site 1). Air quality changes due to the transfer of the parcel would depend on the extent and type of development of the site after the parcel transfer. If a single graveled roadway were to be constructed to a single site, it is anticipated that, other than during construction there would be some slight reduction in air quality locally from traffic-generated dust. During construction of the road, depending on soil dryness of the time of construction, there would likely be moderate reduction of the air quality locally. Removal of topsoil and other soil disturbance would also reduce air quality locally during times of activity and wind. The effects to air quality would be related to the amount of soil surface disturbance and the amount of activity across the disturbed surface prior to soil surface stabilization, either by surfacing or re-vegetation.

Additionally, there would likely be some smell associated with the temporary deposit of waste at the site, and with dead animals before burial.

Cultural Resources

To date, no cultural resources eligible for listing on the National Register of Historic Places have been identified during pedestrian archaeological survey within Site 1. The sale of Site 1 lands would have no effect on historic properties.

Existing and Potential Land Uses

This site occurs in the northwest pasture of the Mackay Allotment. There are two permittees currently grazing this area with 476 cattle and 11 horses from May 9 through October 31. The development of this site as a waste transfer site would change livestock foraging and trailing patterns. The development of this site would also result in a loss of 28 AUM's and would require notification of CFR 43 Subpart 4110.4-2(b) "When public lands are disposed of or devoted to a public purpose which precludes livestock grazing, the permittees and lessees shall be given 2 years' prior notification except in cases of emergency, before their grazing permit or grazing lease and grazing preference may be canceled. A permittee or lessee may unconditionally waive the 2 year notification. Such a waiver shall not prejudice the permittee's or lessee's right to reasonable compensation for, but not to exceed the fair market value of his or her interest in authorized permanent range improvements located on these public lands (see 4120.3- One permittee trails cattle from the southeast pasture through the proposed site in order to eliminate trailing on the highway. The cattle would need to cross the access road to Site 1, and would

therefore need gates along the access road fence. Alternatively an alternate trailing route would have to be established.

The Rights of Way holders (BPA and Lost River Electric Cooperative) for the current land use authorizations at both Sites 1 and 2 would be notified of the proposed R&PP sale to Custer County in writing. If either alternative is selected as the site of development, plans would be submitted by Custer County ensuring the design of the site would not interfere with any current use authorization. Title to any parcel of land BLM disposes of is made “subject to” current use authorization(s). This protects the rights of use authorization holders by guaranteeing their use would continue until expiration or a date determined by both the ROW holder and new land owner.

Hazardous or Solid Waste

Currently there is no identified hazardous or solid waste on the Pete’s Creek site. Under the Proposed Action the land would be transferred to Custer County for the purpose of constructing a waste transfer site that would include in-ground burial of construction/demolition (C&D) waste and dead animals.

While C&D waste by definition does not include hazardous materials or solid waste, from time to time small amounts of hazardous waste have been found included in C&D waste in similar waste transfer sites in Idaho. It is possible that small amounts of hazardous waste could be buried on this site if it were to be sold to Custer County for a waste transfer site.

Burial of dead animals requires daily coverage to reduce disease vector populations. It is likely that some animal bacteria and toxins would be buried with the dead animals.

Recreation

Under this alternative, the 360 acres of land up the Pete’s Creek drainage would be removed from public land management. This tract is in a generally undeveloped setting approximately 10 miles northwest of Mackay. The transfer of this land and development of a waste transfer station would have several impacts to the recreational opportunities, benefits, and experiences currently available in the area. The greatest impact associated with this alternative would be the increased urbanization of the natural landscape. The development of an active transfer station with the associated increases to traffic, noise, structural development (fences, road improvement, support buildings, etc.), and human presence in an otherwise semi-primitive setting would eliminate all recreation on the immediate 360 acres, and effectively displace recreationists outside the sphere of influence (perhaps 1 mile in all directions) of the site. Within this ‘sphere’, where the sites and sounds of the transfer station are evident, the benefit of developing a closer relationship to the natural world would be diminished, or lost entirely. Specific recreational activities including hiking, camping, and hunting would be displaced.

The Joe T. Fallini Campground at the Mackay Reservoir would be expected to be impacted by an increase in litter from household waste blowing from vehicles on their way to the waste transfer site at Site 1.

Visual Resources

Visual resources would be moderately impacted under this alternative. No changes would be expected to either land or water elements of the characteristic landscape. Moderate contrasts would be anticipated to the form and line of vegetative feature with the clearing of vegetation for the site and the access road in an area previously undisturbed in such a manner and degree. Moderate contrasts would also be anticipated to the form, line, color, and texture of the structural element due to the introduction of facilities such as dumpsters, administration buildings, 360 acres of fencing, and access road improvements. Under this alternative, ground disturbance would be expected to expand incrementally if population pressures increase, or as waste pits (for dead animals and construction debris) are replaced and reclaimed.

This site is remote, relatively pristine, and beyond the rural bounds of the town of Mackay. As such, the visual contrasts created by this alternative would not be viewed by many individuals. However, these contrasts would be quite pronounced for those who do see it. When viewed from Highway 93, this alternative would meet the objectives of a VRM Class II area due to the limited duration of exposure, speed of travel, distance from the highway, and focus of the observer. However, when viewed from a point of observation further up the Pete's Creek drainage this alternative would not meet the objectives of a VRM Class II area as it would draw the attention of the casual observer. The VRM analysis is on file at Challis Field Office.

Social and Economic Values

Residents in the town Mackay traveling to Site 1 would drive approximately 20 mile round trip to dispose of household and other waste. The cost in fuel would be expected to be approximately \$3.00-\$6.00 per trip based on the assumptions of \$3.00/gallon gas cost and 10-20 miles per gallon fuel efficiency. Residents north of Mackay would not have to drive as far and costs would be expected to be lower.

The access road to Site 1 would intersect state Highway 93 on a blind corner, non-passing designation area (double yellow line) in a 65 mile per hour speed zone. This situation would present a dangerous motor vehicle situation and raises safety concerns for the residents and visitors to the Mackay area and to Custer County, potentially including Emergency Response services.

Humans have been known to dump trash outside the designated waste areas and this behavior would be expected infrequently. The reason for this illegal dumping may be economic; insufficient funds to pay transfer site fees, fuel costs for the trip to the transfer site, or it may be ignorance or intolerance of the process of delivering one's own refuse to a waste handling facility. If illegal dumping increased because Site 1 was viewed as too far by nearby residents accustomed to a short commute to the waste transfer site; cleanup costs and criminal investigation costs for local law enforcement and BLM law enforcement would likely increase accordingly.

Soils

Soils at the Pete's Creek site are generally very rocky and experience slow to moderate rates of runoff. Disturbance of these soils in upland areas would not likely increase erosion rates, except in areas receiving repeated activity without reclamation or re-vegetation. Removal of vegetation and any existing soil crusts would increase soil surface erosion somewhat. It is anticipated that areas of disturbance would also be areas of soil compaction.

Vegetation Resources

The actual extent of the disturbance to vegetation is unknown at this time since eventual development would be decided by Custer County. Waste cell development for construction materials, dead animal pits, staging areas would destroy bunchgrass and sagebrush plant communities. Non-native invasive plants would increase in these disturbed areas. Under the existing operating plan, excavated material from the construction of non-municipal waste cells would be used as cover material, and for site grading and drainage shaping after each cell is utilized. If this practice continues, native plant seed would be expected to be present in the cover material and native bunchgrasses could germinate. Because this area is composed of relatively pristine vegetation, the introduction of non-native plants from ground disturbing activities and vehicles traveling the access road would be a negative impact to native plant communities.

Wildlife

BLM Sensitive Species: Under the Proposed Action, potential development within the Pete's Creek drainage would be detrimental to the existing population of pygmy rabbits subjected to direct impacts, i.e. new roads or pits/cells. The extent to which pygmy rabbits would be extirpated (or impacted) from any adjacent areas due to animal movements out of Site 1 is unknown. The type and level of indirect impacts also is unknown but could include increased human presence on the adjacent lands, as is evidenced around the existing Mackay transfer site and the Challis transfer site, or an increase in predators that likely will be attracted primarily to carrion at a dead animal disposal pit; when and where they occur, indirect impacts likely would cause a decline in pygmy rabbit presence.

Greater sage-grouse lek activities likely would not be directly impacted unless artificial lighting illuminates the area (considered unlikely). Human activities within Site 1 would not generally occur during the time period when the lek is "active," i.e. through the night until a few hours after sunrise. A direct impact would occur to potential suitable nesting habitat (although limited in quantity) or winter habitat where roads and/or pits/cells are constructed; an indirect impact would occur where facility activities, i.e. noises from heavy equipment, traffic, human presence in general cause adjacent lands to become unsuitable for nesting and/or as protective cover. The placement of any overhead powerline to support a weigh-scale, lighting, a building, or construction of fences around the area, particularly within 0.6 mile of the lek, can lead to bird-fence/powerline collision mortalities, or provide a structure for avian predator perching (ISAC 2006). Avian predators, in particular golden eagles and common raven, would be attracted to any dead animal disposal areas (pits); it is likely that the populations of such predators would

increase as a direct result of the pits and an increase in greater sage-grouse predation would occur as a result when the predators seek alternate food sources.

The Challis Field Office incorporates the areas of two Sage-Grouse Local Working Groups which are divided along IDFG boundaries: the Upper Snake (USSGLWG) and the Challis (CSGLWG). Both of the considered sites are “technically” within the USSGLWG area. However, equal consideration of the risk assessment and conservation actions is necessary for the Challis Field Office to maintain management consistency.

The USSGLWG did not specifically list municipal waste facilities in their plan development (*Plan for Increasing Sage Grouse Populations 2004*). Under “Land Use” it is identified that “Habitat fragmentation reduces available habitat, isolates populations, can make sage grouse more vulnerable to predation” and the corresponding “Objective” is “to discourage or mitigate any development that would result in loss or fragmentation of sage grouse habitat.” The “plan” simply states that “all land management agencies consider sage grouse habitat needs in land exchanges and acquisition programs....” The issues of “predation” and “utility corridors” (which includes powerlines) were assessed. The “Objectives” are “reduce predation (where practical), “target [offending] species and areas, and install anti-raptor perches on existing and new poles and towers in vital sage grouse habitat areas....”

The CSGLWG considered the placement of dump sites/landfills and transfer stations, powerlines and fences in their risk assessments to greater sage-grouse populations. A determination was reached that a facility such as the Proposed Action would have a “high” level of severity if it caused fragmentation of potential suitable nesting habitat; powerlines and fences in close association with leks have “high” and “medium” levels of severity, respectively. The CSGLWG’s “draft” Conservation Measure for a waste facility is “when siting new landfills and transfer stations, land management agencies and local governments should consider alternatives that would avoid sage-grouse leks, nesting habitat, and winter habitat areas where possible as needed and on an on-going basis” (from CSGLWG draft Conservation Plan, dated July 6, 2006).

The *2006 Conservation Plan For The Greater Sage-Grouse In Idaho* (ISAC 2006), a multi-entity, interdisciplinary statewide planning effort, also identifies the potential for impacts to greater sage-grouse from the placement and activities associated with landfills. While technically the Proposed Action qualifies as a “transfer site” rather than a landfill, there are similar components, i.e. dead animal disposal pit, construction waste pit, which have the potential for impacts to leks, nesting and winter habitats. The identified conservation measures include the following: “discourage” placement of this type facility within sage-grouse habitats, “where possible, avoid occupied leks by at least 3.2km (2 miles),” “apply seasonal-use restrictions,” i.e. avoid lek disturbance from March 15 through May 1 during the hours from 6:00 PM to 9:00 AM, and “avoid constructing new fences within 0.6 mile of occupied leks.”

Impacts to other BLM Sensitive Species would generally be direct loss of suitable nesting habitat and cover, and increased human disturbances. The extent of these impacts to any specific species is unknown.

General Wildlife (including Migratory Birds): Wintering mule deer, pronghorn antelope, and to some extent elk, likely would be negatively impacted by Alternative 1. Some direct loss of forage would occur from constructed roads, pits/cells but to a greater extent the lower Pete's Creek drainage would be impacted by human disturbance and fences. Human presence could invoke additional stressors on wintering big game during the most critical season, including forcing big game out of the drainage where they seek protection from winter conditions, and which can increase mortalities or lower productive success. New fences would impede movements, force expenditure of energy (whether to jump a fence or be forced to move around an area), and can result in mortalities when animals become entangled. In general, Alternative 1 would result in big game habitats being negatively fragmented.

Generally, migratory birds would be negatively impacted by the direct loss of habitats or indirectly by an increase in human disturbances. The extent to which birds would be displaced is unknown but the area of Site 1 is not considered "unique" in nesting habitat. Although the presence of the dead animal disposal areas (pits) would provide some level of "artificial" food supply for carrion feeders such a situation should be considered detrimental to these populations as this food supply is unpredictable or temporary. If the dead animals were exposed to poisons or diseases any carrion feeders could be subject to a secondary or non-target poisoning or contract a disease.

Water Quality

The parcel proposed for transfer under the Proposed Action contains an ephemeral channel complex. The very wide ephemeral channel splits the parcel, reducing the usable upland to much smaller parcels. It is unknown if waste site activity would or could be constrained to the upland portions of the parcel. The balance of the parcel is slightly rolling and sloping topography, with larger undivided areas in the east (upland) portion.

If the Construction and Demolition and dead animal burial portions of the waste transfer activity were to occur in the uplands with at least a 100' setback from the existing ephemeral channel, there would likely be little downstream impact to water quality in the event of a high surface flow event. Possible access road construction across the ephemeral channel may alter the channel such that minor erosion and deposition may occur on site and downstream from the site, likely localized to public lands.

If the Construction and Demolition and dead animal burial portions of the waste transfer activity were to occur within the existing ephemeral channel, or within an area closely adjacent, alteration of the flow pattern of the ephemeral channel would likely occur. In a high surface flow event, erosion of the burials could occur and effluent from the burial sites could mix with the surface water and either be injected into the groundwater, flow underneath Highway 93 and onto public lands, flow onto private land, or / and flow into the wetland at the upstream extent of Mackay Reservoir on the Big Lost River. Effluent

would likely be mixed with waste material and sediment from the ephemeral channel if an altered channel were to experience a high flow event.

The Big Lost River upstream of Mackay Reservoir is presently identified on the 303(d) list as impaired by nutrients and sediment. Additional nutrient and sediment loading of this reach of the Big Lost River is inadvisable.

Summary

- The proposed site of Pete's Creek (Site 1) is not consistent with citizens groups or BLM personnel decision analysis rankings for preferred waste site locations (see Introduction).
- If waste burial activity were to occur in the large central ephemeral channel, of Site 1, effluent and waste could be transported downstream in a high run-off event.
- Pygmy rabbit habitat and a documented population would be negatively impacted.
- Greater sage-grouse nesting and winter habitats could be negatively impacted.
- Greater sage-grouse lek activities or breeding population could be negatively impacted.
- Mule deer, pronghorn antelope, and possibly elk, likely would be negatively impacted by human disturbances during the critical winter season, and the winter ranges would be further fragmented by fences, roads and pits/cells.
- Migratory birds could be negatively impacted.
- The 360 acres size is much greater in size than nearby non-municipal sites (Challis 127 acres). It is likely that 360 acres would not be necessary for a waste transfer site for the south county area.
- This is a scenic area, visual impacts are perceived as a negative impact by citizens groups.

Cumulative Impacts

Grazing and wildlife habitat have been the primary uses on the west facing slope of the Lost River mountain range where the proposed Pete's Creek site is located. The vegetation community in this area is relatively undisturbed. The addition of a 360 acre waste transfer site would alter the character of this area by the additive effects of: disturbing soils and native plant communities, loss of wildlife habitat, the introduction of non-native invasive plants; changes in air quality (e.g. odors, particulate matter-dust); potential change in water quality (increased suspended sediment in surface water and or chemical contamination of water); changes in visual resources including the potential for scattered trash outside the project site and along Highway 93; an increase in vehicle traffic; the overall human development of the south county area; light pollution from fixed or vehicle lights operating at night; noise pollution (vehicle and equipment operations); and changes in livestock use patterns. Compared to the existing and past condition these are new and introduced resource impacts and would accumulate for the foreseeable future.¹

¹ For this document the foreseeable future is 50 years.

The plan amendment allowing a Recreation and Public Purposes Act land sale of 360 acres coupled with the foreseeable Woodbury Allotment sale (approx. 103 acres) would result in an increased loss of use of public lands to Tribal members. This is acknowledged as a cumulative adverse effect to Tribal treaty rights.

Impacts of Alternative 2: Lands Near the Existing Mackay Transfer Site (Site 2)

Air Quality

Currently there is no documented air quality problem at the Alternative 2 site; however there is some smell from the adjacent existing waste transfer site. Air quality changes due to the transfer of the parcel would depend on the extent and type of development of the site after the parcel transfer. If the existing site access road were used and extended by the construction of a single graveled roadway, it is anticipated that, other than during construction there would be some slight reduction in air quality locally from traffic-generated dust. During construction of the road extension, depending on soil dryness of the time of construction, there would likely be moderate reduction of the air quality locally. Removal of topsoil and other soil disturbance would also reduce air quality locally during times of activity and wind. The effects to air quality would be related to the amount of soil surface disturbance and the amount of activity across the disturbed surface prior to soil surface stabilization, either by surfacing or re-vegetation.

Additionally, there would likely be some smell associated with the temporary deposit of waste at the site, and with dead animals before burial. This condition may already occur because of the adjacent existing dead animal burial sites at the Mackay waste transfer site.

Cultural Resources

At Site 2, the lands proposed for sale are located within an area that has been used for approximately 100 years by residents of Mackay and the surrounding area to dispose of trash and household garbage. Numerous discrete areas of can, glass and household debris are scattered across about 180 acres, including acreage within the current Mackay landfill site. To date, Site 2 has not been systematically surveyed for cultural resources, and located sites have not been evaluated for eligibility for listing on the National Register of Historic Places. While probably not of National Register caliber, the material remains known to exist in the area still need to be inventoried systematically and integrated with oral histories of the area; this information may provide a greater understanding of how people dealt with the changing economic conditions associated with ranching and mining.

To date, no prehistoric sites have been located within the Site 2 perimeter.

Existing and Potential Land Uses

This alternative would have little impact on the current grazing system because livestock are accustomed to working around the existing site and additional acreage adjacent to this site would not be expected to alter the livestock movement or grazing patterns. The loss

of 80 acres would result in a loss of 6 AUM's. This alternative would not affect the trailing of livestock along the highway.

The ROW holders (BPA and Lost River Electric Cooperative) for the current land use authorizations at both Sites 1 and 2 would be notified of the proposed R&PP sale to Custer County in writing. If either alternative is selected as the site of development, plans would be submitted by Custer County ensuring the design of the site would not interfere with any current use authorization. Title to any parcel of land BLM disposes of is made "subject to" current use authorization(s). This protects the rights of use authorization holders by guaranteeing their use will continue until its expiration or a date determined by both the ROW holder and new land owner.

Hazardous or Solid Waste

Currently there is no identified hazardous waste on the parcel near the existing City of Mackay Waste Transfer Site; however, there has been much surficial dumping of household and ranch waste at this site in the past.

Under Alternative 2, the land would be transferred to Custer County for the purpose of constructing a waste transfer site that would include in-ground burial of construction/demolition (C&D) waste and dead animals. While C&D waste by definition does not include hazardous materials or solid waste, from time to time small amounts of hazardous waste have been found included in C&D waste in similar waste transfer sites in Idaho. It is possible that small amounts of hazardous waste could be buried on this site if it were to be sold to Custer County for a waste transfer site. Burial of dead animals requires daily coverage to reduce disease vector populations. It is likely that some animal bacteria and toxins would be buried with the dead animals.

Recreation

Under this alternative, an 80 acre tract of land would be removed from public land management. This tract is typical of a rural setting with easy access and the obvious presence of human development and likelihood of interaction with others. The transfer of this land and development of a waste transfer station would have little impact to the recreational opportunities, benefits, and experiences currently available in the area. The location of this site (near the existing transfer station and within the rural fringes of the town of Mackay) effectively eliminates conflicts with recreation use, which typically occurs further from town.

Visual resources

Visual resources would be impacted slightly under this alternative. No changes would be expected to either land or water elements. Weak contrasts would be anticipated to the form and line of vegetative feature with the clearing of vegetation for the site and the access road. Very weak contrasts would also be anticipated to the form and line of the structural element due to the addition of boundary fencing (other features, such as dumpsters and administrative structures would be expected to be relocated from the existing transfer site). Under this alternative, ground disturbance would be expected to expand incrementally if population pressures increase, or as waste pits (for dead animals

and construction debris) are replaced and reclaimed, though these impacts would be similar to the existing conditions evident at the existing transfer station.

This site is within the rural bounds of the town of Mackay and is consistent with other disturbances in the area, though it would be visible to a relatively large number of people. However, because these impacts are consistent with the surrounding area and would not be expected to draw the attention of the casual observer, these contrasts are within the limits allowed by VRM Class II guidelines.

Social and Economic Values

Residents in the town Mackay would drive approximately 2 miles, round trip, to dispose of household and other waste. The cost in fuel would be expected to be approximately 30 to 60 cents to per trip based on the assumptions of \$3.00/gallon gas cost and 10-20 miles per gallon fuel efficiency. Residents north of Mackay would have to drive further and costs would be expected to be higher.

Site 2 would be accessed off a county road with speed limits of 25-35 miles per hour. The access to Site 2 would be safer for community residents due to these slower speed limits and improved visibility when compared to Site 1.

Humans have been known to dump trash outside the designated waste areas and this behavior would be expected infrequently. The reason for this illegal dumping may be economic; insufficient funds to pay transfer site fees, fuel costs for the trip to the transfer site, or it may be ignorance or intolerance of the process of delivering one's own refuse to a waste handling facility. Locating the waste transfer facility at Site 2 would likely result in less illegal dumping than Site 1 because it is almost adjacent to the current site. Therefore, most of the population density of the city of Mackay is closer to Site 2 and is already accustomed to delivering their refuse to the current waste handling facility.

Private property owners near the existing waste site and therefore Site 2 would be expected to have less favorable property values than those further away from a waste facility.

Soils

Soils at Site 2 are generally very rocky and experience slow to moderate rates of runoff. Disturbance of these soils in upland areas would not likely increase erosion rates, except in areas receiving repeated activity without reclamation or re-vegetation. Removal of vegetation and any existing soil crusts would increase soil surface erosion somewhat. It is anticipated that areas of disturbance would also be areas of soil compaction.

Vegetation Resources

The actual extent of the disturbance to vegetation is unknown at this time since eventual development would be decided by Custer County. Waste cell development for construction materials, dead animal pits, staging areas would destroy bunchgrass and sagebrush plant communities. Non-native invasive plants would increase in these disturbed areas. Under the existing operating plan, excavated material from the

construction of non-municipal waste cells would be used as cover material, and for site grading and drainage shaping after each cell is utilized. If this practice continues, native plant seed would be expected to be present in the cover material and native bunchgrasses could germinate. Because this area is almost adjacent to the existing Mackay waste transfer site, the introduction of non-native plants from ground disturbing activities and vehicles traveling the access road would be similar to what already occurs nearby. The vegetation impacts of non-native invasive plants to the Site 2 would be less than the impacts to Site 1.

Wildlife

BLM Sensitive Species: Impacts under Alternative 2 would be less than for Alternative 1. No pygmy rabbit populations were identified in the area of Site 2 as reported by IDFG (2006) or by Roberts (2001) but a small amount of potential habitat could be impacted by direct loss.

Impacts to greater sage-grouse, particularly at the Dump Lek could result if Site 2 is lighted at night (considered unlikely), or if human disturbance levels increase because traffic ventures beyond the boundaries of Site 2 (considered likely). The expected hours of operation at Site 2 would be outside of the period when leks are considered “active”, i.e. through the night until a few hours after sunrise; therefore, normal operations at the Site should not impact the lek which is 0.4-mile at the closest point. Two-track roads already exist on the edges of Site 2 so new construction likely would occur interior to these roads and a limited amount of “marginal” nesting habitat or winter habitat would be directly impacted; some indirect impact associated with noise or human disturbance could occur to either nesting or winter habitats in the small drainages on either side of Site 2. However, the existing two-tracks, the upgraded County road, and the powerline already create some level of fragmentation as a result of traffic, potential predator perching and occasional human presence. Further fragmentation would occur if the overhead powerline is extended to the north (considered unlikely). As with Alternative 1, avian predator populations likely would increase due to carrion at the dead animal disposal areas and greater sage-grouse predations would increase.

Impacts to other BLM Sensitive Species would generally be direct loss of nesting habitat and cover which is more limited around Site 2 than Site 1, and increased human disturbances. The extent of these impacts to any specific species is unknown.

General Wildlife (including Migratory Birds): Impacts under Alternative 2 would be less than under Alternative 1. While Site 2 does include some identified pronghorn antelope winter range, the Site is on the “edge” rather than protruding much into and fragmenting the range as in Site 1. Site 2 does not offer the thermal protection of Site 1, although some relief could occur in the shallower drainages adjacent to Site 2. To the extent that traffic would travel on the periphery of Site 2, wintering wildlife likely would be disturbed; however, such an impact would still be less under Alternative 2 than Alternative 1. The construction of fences would result in similar (to Site 1) impacts; however, existing fences on the south around the existing Mackay transfer site and

around the private land to the north already alter movements but the new fences would be an additive impact.

Impacts to migratory birds under Alternative 2 would be similar to Alternative 1. There is generally less suitable nesting or protective cover habitats within Site 2. The potential for impacts to carrion feeding species would be the same as under Alternative 1.

Water Quality

Ephemeral channels cross the parcel. The widest and most defined ephemeral channel is located at the west edge of the parcel, and other ephemeral channels are very small and exhibit little erosion. While it is unknown if waste site activity would be limited to that area outside of the large ephemeral channel, the large channel does not split the parcel and there would be no necessity to use or cross that small portion of the parcel. The remainder of the Site 2 parcel is slightly rolling and sloping topography. There are large contiguous areas where no major ephemeral channel exists on this parcel.

If the Construction and Demolition and dead animal burial portions of the waste transfer activity were to occur in the uplands with at least a 50' setback from the existing ephemeral channel, there would likely be little downstream impact to water quality in the event of a high surface flow event. Possible access road construction across the ephemeral channel may alter the channel such that minor erosion and deposition may occur on site and downstream from the site, likely localized to public lands.

If the Construction and Demolition and dead animal burial portions of the waste transfer activity were to occur within the existing ephemeral channel, or within an area closely adjacent, alteration of the flow pattern of the ephemeral channel would likely occur. In a high surface flow event erosion of the burials could occur and effluent from the burial sites could mix with the surface water and either be injected into the groundwater, flow toward or onto private land downslope from the site, and possibly into the irrigation ditch along Bench Road. Effluent would likely be mixed with waste material and sediment from the ephemeral channel if the channel was altered and high flows were to occur. It is unlikely that effluent would flow across the fairly flat area northeast of the City of Mackay due to its low gradient. High flows would likely infiltrate or be diverted before reaching the City of Mackay or the Big Lost River.

Summary

- Pygmy rabbit populations would not be negatively impacted but a small amount of potential habitat could be negatively affected.
- A limited amount of greater sage-grouse nesting could be negatively impacted, most likely as an indirect effect of noise.
- Greater sage-grouse lek activities or breeding population could be negatively impacted.
- Pronghorn antelope, and to some extent mule deer, likely would be negatively impacted by human disturbances during the critical winter season, and the winter ranges would be fragmented by fences and pits/cells; existing roads already fragment the area.

- Migratory birds would be negatively impacted.
- Because residents are concentrated around the city of Mackay they would pay less to drive to Site 2 than to Site 1.
- Site 2 nearly borders and is north and east of the existing Mackay transfer site, therefore the land use is essentially the same as a waste transfer site.

Cumulative Impacts

There are no *significant* cumulative impacts because none of the alternative's impacts, when added to those from other actions in the area are significant. This is because Site 2 is near the existing Mackay waste transfer facility, is littered with 20th century waste and the type of action would be the same, (i.e. waste facility). The addition of 80 acres for community waste disposal needs is deemed to be small in relation to the surrounding land area. This 80 acre parcel is commensurate with the size of the Challis Non-Municipal Waste Transfer site (127 acres) in northern Custer County. The two sites are expected to serve the needs of north and south county residents for the foreseeable future (50 years).

The plan amendment allowing a Recreation and Public Purposes Act land sale of 80 acres coupled with the potential Woodbury Allotment competitive sale (approx. 104 acres) and the Redbird Mine direct sale (approx. 330 acres), would result in an increased loss of use of public lands by Tribal members. This is acknowledged as a cumulative adverse effect to Tribal treaty rights.

Impacts of Alternative 3: No Action alternative

The no action alternative of not selling public lands to Custer County would have no direct effects on public land resources that were identified under Alternative 1 or 2. The existing waste site is owned by the city of Mackay and the operation of this facility has a limited lifespan. If an alternative site is not found the county would be without a waste transfer site for the south county area. Indirect effects could include illegal dumping of non-hazardous or hazardous waste outside the existing facility and trash blowing onto federal lands. These same effects have been identified for Alternative 1 and 2.

CONSULTATION AND COORDINATION

Governments, Agencies and Persons Consulted

Shoshone-Bannock Tribes

March 7, 2005 – letter sent Shoshone-Bannock Tribes Business Council to initiate consultation regarding waste site.

October 7, 2005 – discussion of waste site during mine tour, Challis Field Office.

November 29, 2006 – meeting with Shoshone-Bannock Tribes Business Council

Idaho Department of Fish and Game

USDA Forest Service

Idaho Department of Environmental Quality

Custer County

US Fish and Wildlife Service

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REFERENCES

BLM 8100 Manual Direction Series (2004). U.S. Government Printing Office:2005-773-016/50558.

Challis Resource Management Plan (1999, BLM)

IDEQ, 1998. Clean Water Act 303(d) list for Idaho. Idaho Department of Environmental Quality, Boise, Idaho.

IDEQ, 2004. Big Lost River Subbasin Assessment and Total Maximum Daily Load. Idaho Department of Environmental Quality, Idaho Falls, Idaho.

ISAC (Idaho Sage-grouse Advisory Committee). 2006. Conservation Plan for the Greater Sage-grouse in Idaho. Idaho Dept. of Fish and Game, Boise, ID. 549pp.

Roberts, Hadley B. 2001. Survey of Pygmy Rabbit Distribution, Numbers and Habitat Use in Lemhi and Custer Counties, Idaho. ID BLM Tech. Bull. #01-11. 21pp.

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1/30/2007
Date

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5/8/2007
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