

**DECISION RECORD**  
**BLM CATEGORICAL EXCLUSION NO. F-10 (CX F-10), WY-070-CX14-295**  
**Washakie County Road & Bridge Department (Washakie County),**  
**Billy's Flat/Rome Hills Sand/Gravel Mine, WYW-168462**  
**Bureau of Land Management (BLM), Buffalo Field Office (BFO), Wyoming**

**DECISION:**

BLM approves a free use permit (FUP) application for removal of 20,000 tons of Mineral Materials by Washakie County Road and Bridge Department (Washakie County) from their Billy's Flat/Rome Hills Sand/Gravel Mine. The activities involved in the fulfillment of this FUP (BLM serial casefile WYW-168462) are described in CX F-10, WY-070-CX14-295, incorporated here by reference. This project is the result of collaboration between the BLM Buffalo Field Office (BFO) and Washakie County. The material to be removed is currently held in one large stockpile of previously-prepared sand/gravel. There may still remain a good amount of usable material yet unmined at this site. This site consists of approximately 10 acres of BLM-administered surface and mineral lands in the area indicated below. The surface disturbance is inclusive of all support infrastructure to include but not limited to the mine, staging area, access road, etc. No new disturbance is to occur during the 10-year life of this FUP.

**Compliance.** This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); Interior Order 3310.
- The Materials Act of 1947 (30 USC 601 et seq.), as amended; 43 CFR 3600 et seq.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- Buffalo Resource Management Plan (RMP) and Records of Decision (RODs) 1985, 2001, 2003, 2011.
- Supplement to Memorandum of Understanding No. WY 19 Between the US DOI BLM, Wyoming State Office, and the State of Wyoming DEQ LQD for Management of Surface Mining and Exploration for Mineral Materials (Salable Minerals) on Public Lands; 2013.

The following summarizes details of the approval. The project description and site-specific mitigation measures are found in the CX F-10, WY-070-CX14-295.

County	Feature	TWN	RNG	Sec	Subdivision	Acres
Johnson	Washakie County's Billy's Flat/Rome Hills Sand/Gravel Mine	47 N	85 W	33	N2NESENE	10
TOTAL						10 (no new disturbance)

**Limitations.** Approval of this project is dependent on compliance with the Standard Stipulations cited in the 2009 decision record for EA, WY-070-EA09-027, incorporated here by reference, that no new surface disturbance occur, in addition to the Standard Stipulations for the for CXF-10, WY-070-CX14-295.

**THE FINDING OF NO SIGNIFICANT IMPACT (FONSI).** Analysis of the EA, WY-070-EA09-027, and its finding, found no significant impact on the human environment, both incorporated here by reference. The CXF-10 found that this type of action is categorically excluded from having significant impacts on the human environment, thus an EIS, EA, and FONSI are not required.

**COMMENT OR NEW INFORMATION SUMMARY.** Public scoping for Free Use Permits is not required by 43 CFR 3600, although BLM will post the decision to its website.

**DECISION RATIONALE.** The BLM approves the project for the following reasons:

1. BLM and Washakie County added design features and mitigation measures which reduced environmental impacts while meeting the BLM's need:
  - a. BLM approves the FUP as submitted by Washakie County to remove 20,000 tons of sand/gravel from an existing disturbance of 10 acres of BLM-administered surface and minerals, contingent upon compliance with other conditions of approval and reclamation.
2. The approved project will not result in any undue or unnecessary environmental degradation and complies with 43 CFR 3604, Free Use of Mineral Materials.
3. The approved project will help meet the nation's mineral materials needs.
4. The approved project will help ensure continued public health and safety by meeting needs for nearby road maintenance.
5. The approved project will help stimulate local economies by maintaining workforce stability.
6. The Operator committed to:
  - a. Comply with all applicable federal, state, and local laws and regulations.
  - b. Confine the surface disturbance to that existing at the time of this FUP application.
  - c. Reclaim the mine to the standards in the WY BLM Reclamation Policy found in Appendix A to WY-070-CX14-295, as Washakie County agreed to in its 2009 application.
  - d. Comply with the terms and conditions in force from the 2009 EA, WY-070-EA09-027, and further grandfathered here.
7. The Operator certified it has posted an acceptable bond or that bond was waived.
8. This project is not located in or near, nor will it affect, a floodplain, wetland, or riparian area.
9. The project is clearly lacking in wilderness characteristics as it is smaller than 5,000 acres.
10. BLM reviewed the 12 extraordinary circumstances and none apply, 43 CFR 46.215.

**ADMINISTRATIVE APPEAL.** This decision is subject to administrative review in accordance with 43 CFR 3601.80. Request for administrative review of this decision must include information required under 43 CFR 4 and is appealed to the Interior Board of Land Appeals, as provided in 43 CFR 3601.80 and 43 CFR 4. A party adversely affected by a decision of the authorized officer or State Director made pursuant to subpart 43 CFR 3600, et. al., has the right of appeal to the Interior Board of Land Appeals, Office of Hearings and Appeals, pursuant to 43 CFR 4 and 43 CFR 1840.

Field Manager:                   /s/ Duane W. Spencer                  

Date:                   8/14/14

**BLM CATEGORICAL EXCLUSION NO. F-10 (CX F-10), WY-070-CX14-295  
Washakie County Road & Bridge Department (Washakie County),  
Billy's Flat/Rome Hills Sand/Gravel Mine, WYW-168462  
Bureau of Land Management (BLM), Buffalo Field Office (BFO), Wyoming**

**BLM Categorical Exclusion (pursuant to 516 DM 11.9) F-10.** Disposal of mineral materials, such as sand, stone, gravel, pumice, pumicite, cinders, and clay, in amounts not exceeding 50,000 cubic yards or disturbing more than 5 acres, except in riparian areas.

**A. BACKGROUND**

**OFFICE:** BLM, Buffalo Field Office (BFO), 1425 Fort St., Buffalo, WY, 82834.

**TRACKING NUMBERS:** WY-070-CX14-295.

\* WY-070-EA09-027, approved January 15, 2009, for Washakie County's Billy's Flat/Rome Hills Sand/Gravel Mine; see BLM casefile, WYW-170002.

\* WY-070-EA10-171, approved May 13, 2010, for Johnson County's Hakert Sand/Gravel Mine; see BLM casefile WYW-170084.

\* WY-070-EA12-109, approved March 22, 2013, for Quality Aggregate and Construction's Recluse Clinker ("Scoria") Mine; see BLM casefile WYW-168351.

\* BLM tiers to and incorporates these NEPA analyses by reference here because of substantially similar proposed mining operations, geography, and/or other resource issues.

**BLM CASEFILE NO.:** WYW-168462.

**TITLE OF PROPOSED ACTION:** New Free Use Permit (FUP) for Washakie County's Billy's Flat/Rome Hills Sand/Gravel Mine.

**PROPOSED ACTION:** Remove 20,000 tons of previously-prepared and stockpiled sand/gravel from an existing 10-acre disturbance, over 10 years' time. This site exists entirely on BLM-administered surface and mineral estate. This proposal involves no new surface disturbance.

**LEGAL DESCRIPTION:**

County	Feature	TWN	RNG	Sec	Subdivision	Acres
Johnson	Washakie County's Billy's Flat/Rome Hills Sand/Gravel Mine	47 N	85 W	33	N2NESENE	10
TOTAL						10 (no new disturbance)

**APPLICANT:** Washakie County Road and Bridge Department (Washakie County), P.O. Box 260, Worland, WY, 82401.

**Description of Proposed Action:** Washakie County submitted a new FUP application in order to continue removing mineral materials (sand/gravel) from their Billy's Flat/Rome Hills Sand/Gravel Mine. This FUP application indicates they wish to remove 20,000 tons of sand/gravel from a stockpile of previously-prepared materials in this existing mine, over 10 years' time. This site has approximately 10 acres of existing disturbance, all entirely on BLM-administered surface and mineral estate. This mine is permitted under Wyoming Department of Environmental Quality (WDEQ) Land Quality Division (LQD) Permit to Mine #584. The current disturbance consists of the actual mine area, staging areas, and access road. No new disturbance is anticipated to occur during the duration of this proposed FUP. There is still potentially a good amount of materials remaining unmined at this time. However, no mining or new disturbance is anticipated during the life of this FUP (see Figure 2). This mine, in addition to Johnson County's across Hazelton Road, has experienced noticeable unauthorized removals of materials (see Figure 3). Washakie County will use the sand/gravel to surface county roads.

The mine is approximately 31 miles southwest of Buffalo. The site is directly off Hazelton Road (Johnson County Road 3), approximately 14 miles off US Highway 16. The mine is on the east side of Johnson CR 3, approximately 1 mile north of where Rome Hills Road (Johnson CR 3A) joins Johnson CR 3, and approximately 1 mile south of where Gold Mine Road joins Johnson CR 3 (see Figure 1). The Washakie County boundary occurs approximately 2.85 miles from Johnson CR 3; at this point, Johnson CR 3A becomes Washakie County Road 56. All material from this mine will be used on Washakie CR 56. All equipment needed to remove these materials will be operated and housed in the current area of disturbance. The 2009 authorization for this mine to Washakie County was for a 10-acre mine; this was EA, WY-070-EA09-027, to which this CX F-10 tiers. This application covers 10 acres, and anticipates no new surface disturbance.

## **B. LAND USE PLAN CONFORMANCE**

**Land Use Plan:** Buffalo Resource Management Plan (RMP) approved 1985; Amended 2001, 2003, and 2011.

### **The proposal conforms to the applicable RMP because it is specifically provided for in the following RMP decision(s):**

Buffalo Resource Management Plan (RMP), 1985, p. 8; MM-8: The entire resource area is available for mineral materials sales initiated either by the BLM or by application. This does not include sites designated by the BLM for free use by city, county, and state entities.

## **C. COMPLIANCE WITH NEPA**

The proposal is categorically excluded from further analysis under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9: F. Solid Minerals, 10, "Disposal of mineral materials, such as sand, stone, gravel, pumice, pumicite, cinders, and clay, in amounts not exceeding 50,000 cubic yards or disturbing more than 5 acres, except in riparian areas." [Note that 50,000 cubic yards (CY) of sand/gravel equals approximately 33,333 tons, as 1 CY equals approximately 1.5 tons.]

This CX F-10 is appropriate in this situation because there are no extraordinary circumstances having effects that may significantly affect the environment. BLM reviewed the proposal and none of the extraordinary circumstances in 516 DM 2 (and BLM NEPA Handbook H-1790-1, Appendix 5) apply.

### **I considered:**

- BLM and Washakie County added design features and mitigation measures which reduced environmental impacts while meeting the BLM's need:

- BLM approves the FUP as submitted by Washakie County to remove 20,000 tons of sand/gravel from an existing disturbance of 10 acres of BLM-administered surface and minerals, contingent upon compliance with other conditions of approval and reclamation.
- The approved project will not result in any undue or unnecessary environmental degradation and complies with 43 CFR 3604, Free Use of Mineral Materials.
- The approved project will help meet the nation’s mineral materials needs.
- The approved project will help ensure continued public health and safety by meeting needs for nearby road maintenance.
- The approved project will help stimulate local economies by maintaining workforce stability.
- The Operator has committed to:
  - Comply with all applicable federal, state, and local laws and regulations.
  - Confine the surface disturbance to that existing at the time of this FUP application.
  - Reclaim the mine to the standards in the WY BLM Reclamation Policy found in Appendix A to WY-070-CX14-295, as Washakie agreed to in its’ 2009 application.
  - Comply with the terms and conditions in force from the EA, WY-070-EA09-027, and further grandfathered here.
- The Operator certified it has posted an acceptable bond or that bond was waived.
- This project is not located in or near, nor will it affect, a floodplain, wetland, or riparian area. The nearest riparian area is more than 1 mile east near the headwaters of Johnson Creek. Dull Knife Reservoir, formed using North Fork of Powder River, is more than 2 miles north of the mine.
- The project is clearly lacking in wilderness characteristics as it is smaller than 5,000 acres.

**Persons and Agencies Consulted**

The following individuals and agencies were consulted and contributed to this document:

- Jaime Jakes; WDEQ LQD Environmental Analyst
- Don Brewer; BLM Biologist
- Ardeth Hahn; BLM Archaeologist
- John Kelley; BLM NEPA Coordinator
- Kerry Aggen; BLM Geologist, Project Lead, and Document Preparer

**D: SIGNATURE**

Field Manager: \_\_\_\_\_/s/ Duane W. Spencer \_\_\_\_\_ Date: \_\_\_\_\_ 8/14/14 \_\_\_\_\_

**CONTACT PERSON:** Kerry Aggen, Field Office Geologist, Buffalo Field Office, 1425 Fort Street, Buffalo, WY, 82834, 307-684-1196, kaggen@blm.gov.

**REVIEW AND DOCUMENTATION FOR EXTRAORDINARY CIRCUMSTANCES:**

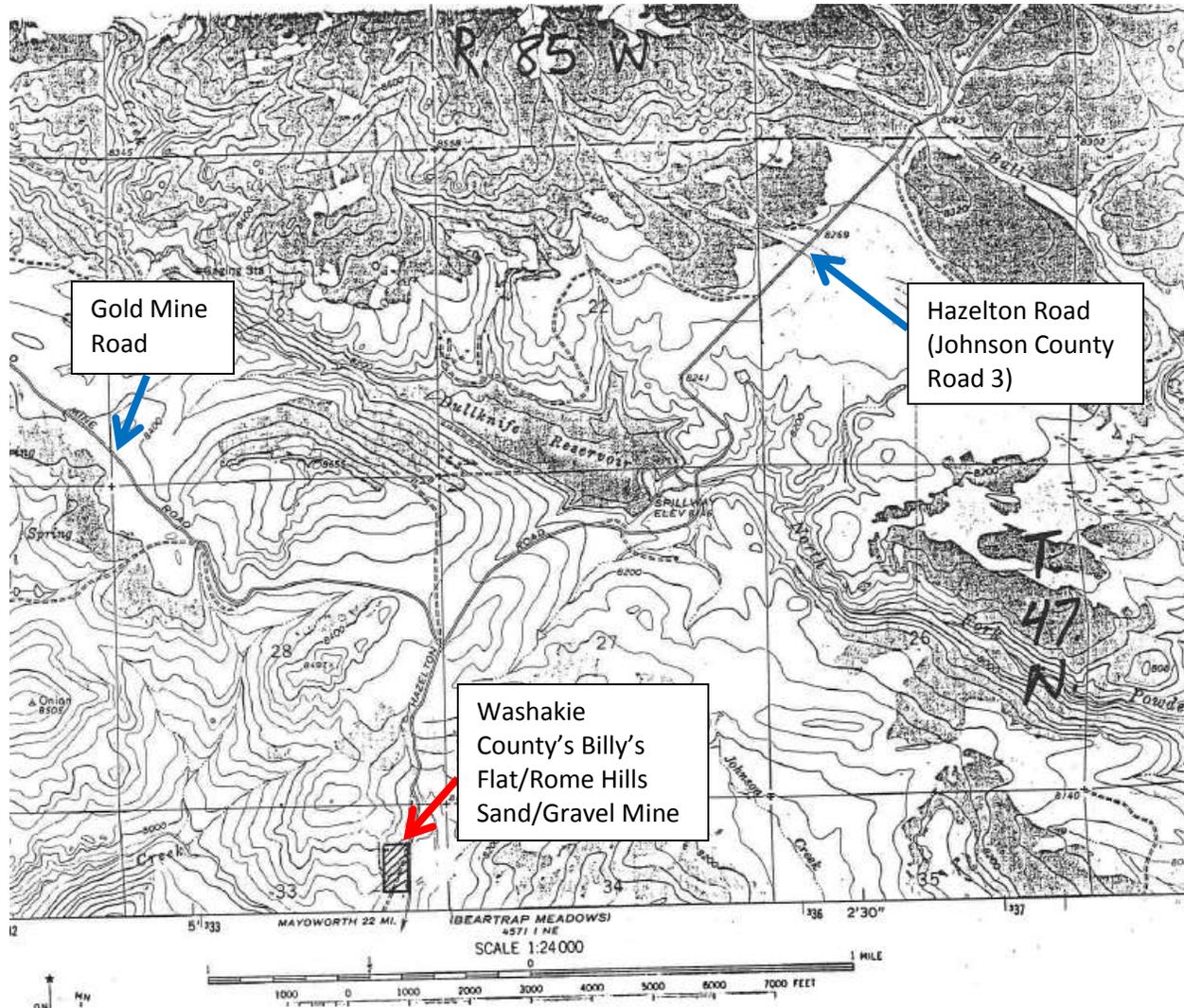
This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 516 DM 2 (and BLM NEPA Handbook H-1790-1, Appendix 5) apply.

<b>EXTRAORDINARY CIRCUMSTANCES:</b>		
1. Have significant impacts on public health or safety.		
Yes	<b>No XX</b>	This project will have <i>positive</i> impacts on public health and safety. The mineral materials obtained from the project area will be used on nearby county roads to help keep them passable for much of the year. These roads are used much of the year by employees of the county, as well as residents and tourists. State and federal employees also use these roads to access many operations to conduct inspections and other required activities. Any potentially negative impacts on public health and safety are mitigated for and/or minimized through the Standard Stipulations attached to the project.
2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		
Yes	<b>No XX</b>	<p>The proposed undertaking has no potential to affect historic properties. On July 25, 2014, BLM electronically notified the Wyoming State Historic Preservation Office (SHPO) following Section V(E)(iii) and Appendix B(2) of the 2014 Wyoming State Protocol that the undertaking is exempt from review. If, during the course of any ground disturbance related to this project, any bones, artifacts, foundations, or other indications of past human occupation of the area are uncovered, the ground-disturbing activity will be stopped immediately, and a BFO Archaeologist contacted.</p> <p>There are no areas of critical environmental concern, wilderness study areas, monuments, or other areas with special designation or needing special protection in or near the project area.</p> <p>The project area does not occur in, nor will it affect, a floodplain, wetland, or riparian area. The nearest riparian area is along Johnson Creek, over 1 mile east of the project area.</p>
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102 (2) (E)].		
Yes	<b>No XX</b>	<p>This project involves continued removal of previously prepared (crushed and stockpiled) sand/gravel from an existing mine. This mine has been in existence since 1984, when it was first opened by Washakie County; all subsequent authorizations have been to Washakie County.</p> <p>The nearest BLM-authorized sand/gravel mines to the project area are: Johnson County's Rome Hills, directly across CR 3, WYW-170016; Dull Knife Dirtwork's BLM, approx. 1 mile south; and Johnson County's Government Reservoir, approx. 14 miles southeast. There are no other BLM-authorized mineral materials mines within 20 miles of this mine.</p>

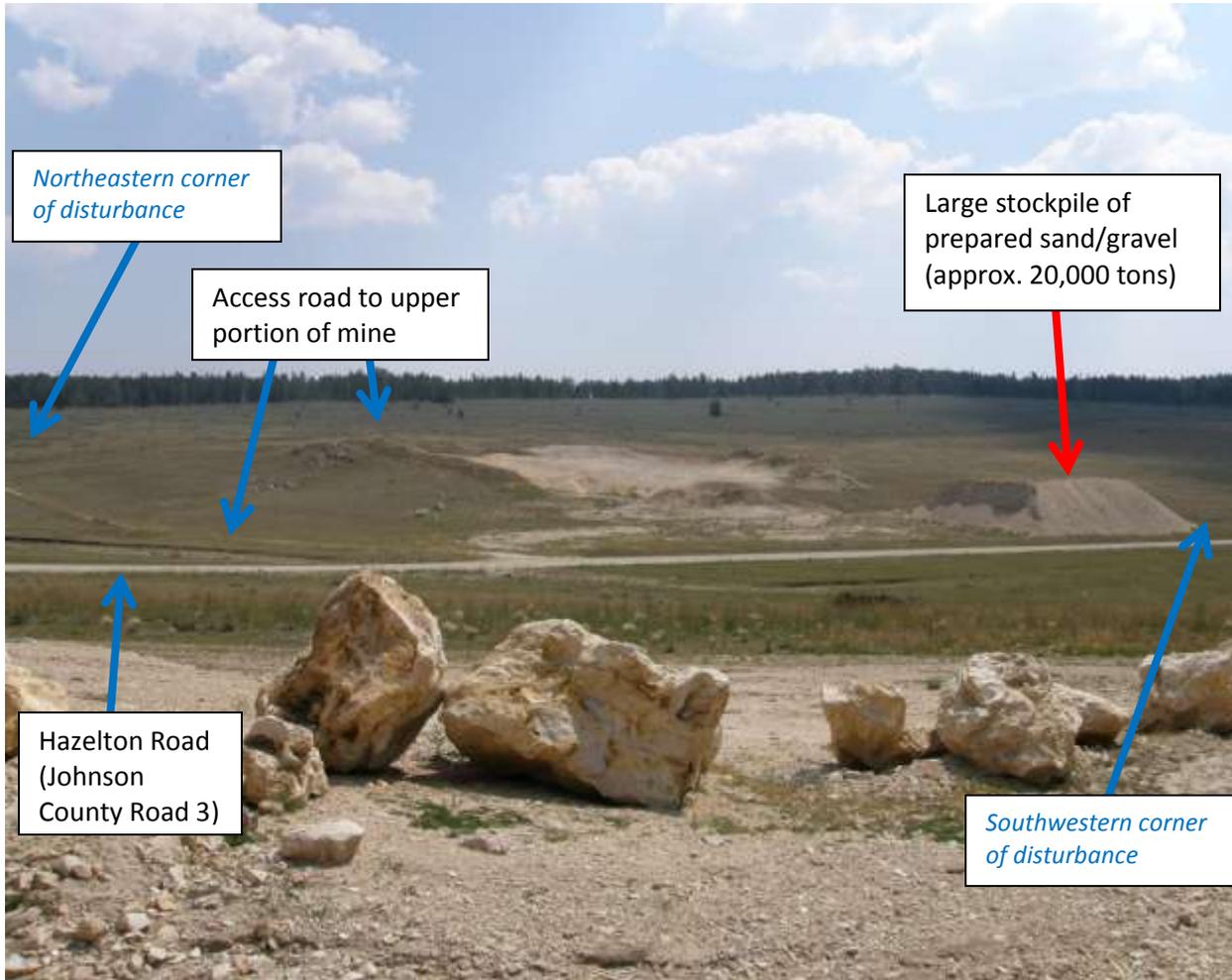
<b>EXTRAORDINARY CIRCUMSTANCES:</b>		
		The impacts of this project are similar to other mineral materials projects that have been implemented and monitored. Therefore, impacts of the proposed project are well-known, and will be overwhelmingly positive (see #1 above).
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		
Yes	<b>No XX</b>	The proposed action generally has very predictable consequences well established as insignificant.
5. Establish a precedent for future action or represent a decision in principal about future actions with potentially significant environmental effects.		
Yes	<b>No XX</b>	This project will not have a potentially significant environmental effect.
6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		
Yes	<b>No XX</b>	This project does not have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.
7. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.		
Yes	<b>No XX</b>	The project area consists entirely of existing disturbances, and no new disturbances are proposed. No cultural resources, including historical properties, will be affected (see #2 above).
8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species. A table of analyses for specific threatened, endangered and sensitive species can be found in the project files.		
Yes	<b>No XX</b>	<p>The project area is outside of core/connectivity areas for greater sage-grouse (GSG) conservation (as outlined in Wyoming State Executive Order 2011-5, "Greater Sage-Grouse Core Area Protection."). No GSG leks occur within 4 miles of the existing mine. Suitable nesting habitat is limited to marginal cover adjacent to the mine.</p> <p>Suitable raptor nesting habitat is present within 0.5 miles of the proposed project; however, no nests have been documented near the project area.</p> <p>Suitable nesting habitat for migratory birds exists in the project area. No nests were located during surveys.</p> <p>No new surface disturbance is proposed for the pit. Impacts to wildlife from the hauling of stockpiled material will be minimal.</p> <p>No listed or proposed threatened and endangered species, or their critical habitat, occur in/near the project area.</p> <p>The Buffalo Field Office database indicates that the mine area is within potential habitat for William's waferparsnip (<i>Cymopterus williamsii</i>) [WWP], a BLM Special Status (Sensitive)</p>

<b>EXTRAORDINARY CIRCUMSTANCES:</b>		
		<p>Species (SSS). The field survey indicated that the soil present was not the limestone outcrop habitat described for WWP; nor were any WWP observed.</p> <p>Another BLM SSS present in the vicinity, the limber pine (<i>Pinus flexilis</i>) was not present where mining occurred.</p> <p>No new surface disturbance is proposed for the pit. Impacts to wildlife from the hauling of stockpiled material will be minimal.</p> <p>No listed or proposed threatened and endangered species, or their critical habitat, occur in/near the project area.</p> <p>No Special Stipulations were recommended to be attached to the mine's authorization, as further mitigation is likely not needed (see #2 above).</p>
9. Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment.		
Yes	<b>No XX</b>	The existing mining operation is currently, and will continue to be, permitted by WDEQ LQD under Permit to Mine #584. WGFD will routinely monitor the site for wildlife impacts.
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		
Yes	<b>No XX</b>	Neither low-income nor minority populations will be impacted. The nearest residents to the project area are residents who typically only reside in the area only seasonally, and ranchers; some of these parties own adjacent surface and/or mineral lands.
11. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).		
Yes	<b>No XX</b>	No sacred sites exist in or near the project area, therefore access to sacred sites will not be affected by approval of this project (see #2 above).
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).		
Yes	<b>No XX</b>	Operator has agreed to abide by the Standard Stipulations attached to the approval of this project. These Stipulations include requirements that the operator take necessary actions to prevent the introduction and/or spread of noxious or non-native invasive species in the project area.

Figure 1. Map showing approximate location of Washakie County's existing Billy's Flat/Rome Hills Sand/Gravel Mine project (WYW-168462). This map was provided to BLM by Washakie County. No further disturbance is proposed here.



**Figure 2. Panoramic view of Washakie County’s existing Billy’s Flat/Rome Hills Sand/Gravel Mine project (WYW-168462).** The stockpile of existing previously-prepared sand/gravel can be seen in right middle ground, east of Hazelton Road (Johnson County Road 3). Although the mine disturbance stretches across almost 10 acres, about 1/3 to 1/2 of those acres are undisturbed. There may be a good deal of material still remaining unmined at this site. However, no mining or further disturbance is anticipated during the 10-year life of this FUP. Photo taken looking east from eastern edge of Johnson County’s Rome Hills Sand/Gravel Mine (WYW-170016), just west of Hazelton Road (Johnson CR 3), and Washakie County’s Mine, on August 16, 2013, by Kerry L. Aggen.



**Figures 3a and b. Closer view of Washakie County’s existing Billy’s Flat/Rome Hills Sand/Gravel Mine project (WYW-168462).** The front “face” of the stockpile of existing prepared sand/gravel (approx. 20,000 tons) can be seen stretching across foreground; SUV for scale in top photo. Photos taken by Kerry L. Aggen looking south from lower portion of mine: top photo on August 16, 2013; bottom photo on July 11, 2014. Note that much of the loose material along the base of the face of the stockpiled sand/gravel (approx. 2/3) appears to be missing. This stockpile was created in summer 2009, and no Washakie County personnel have removed any materials from this stockpile for at least 3 years. Just as with the Johnson County mine directly across Hazelton Road, there have been unauthorized removals of materials from this mine also; unfortunately, such are common occurrences in this area.

**Figure 3a.** Photo of front edge of stockpile taken on August 16, 2013. Note the moderate amount of loose material along the base of the stockpile face.



**Figure 3b.** Photo of front edge of stockpile taken on July 11, 2014. Note that much of the loose material along the base of the stockpile face (approx. 2/3) is now gone.



## **APPENDIX A: RECLAMATION REQUIREMENTS, WYOMING BLM.**

*The following Reclamation Requirements apply to all surface disturbing activities, including BLM-initiated activities, and must be addressed in each reclamation plan. These requirements also must be met prior to release of the bond and/or the reclamation liability. Where these Reclamation Requirements differ from other applicable federal, laws, rules, and regulations, those requirements supersede this policy. State and/or local statutes or regulations may also apply.*

### **1. Manage all waste materials:**

- a. Segregate, treat, and/or bio-remediate contaminated soil material.
- b. Bury only authorized waste materials on site. Buried material must be covered with a minimum of three feet of suitable material or meet other program standards.
- c. Ensure all waste materials moved off-site are transported to an authorized disposal facility.

### **2. Ensure subsurface integrity, and eliminate sources of ground and surface water contamination:**

- a. Properly plug all drill holes and other subsurface openings (mine shafts, adits etc.).
- b. Stabilize, properly back fill, cap, and/or restrict from entry all open shafts, underground workings, and other openings.
- c. Control sources of contamination and implement best management practices to protect surface and ground water quality.

### **3. Re-establish slope stability, surface stability, and desired topographic diversity:**

- a. Reconstruct the landscape to the approximate original original contour or consistent with the land use plan.
- b. Maximize geomorphic stability and topographic diversity of the reclaimed topography.
- c. Eliminate highwalls, cut slopes, and/or topographic depressions on site, unless otherwise approved.
- d. Minimize sheet and rill erosion on/or adjacent to the reclaimed area. There shall be no evidence of mass wasting, head cutting, large rills or gullies, downcutting in drainages, or overall slope instability on/or adjacent to the reclaimed area.

### **4. Reconstruct and stabilize water courses and drainage features:**

- a. Reconstruct drainage basins and reclaim impoundments to maintain the drainage pattern, profile, and dimension to approximate the natural features found in nearby naturally functioning basins.
- b. Reconstruct and stabilize stream channels, drainages, and impoundments to exhibit similar hydrologic characteristics found in stable naturally functioning systems.

### **5. Maintain the biological, chemical, and physical integrity of the topsoil and subsoil (where appropriate):**

- a. Identify, delineate, and segregate all salvaged topsoil and subsoil based on a site-specific soil evaluation, including depth, chemical, and physical characteristics.
- b. Protect all stored soil material from erosion, degradation, and contamination.
- c. Incorporate stored soil material into the disturbed landscape.
- d. Seed soils to be stored beyond one growing season, with desired vegetation.
- e. Identify stockpiles with appropriate signage.

**6. Prepare site for revegetation:**

- a. Redistribute soil materials in a manner similar to the original vertical profile.
- b. Reduce compaction to an appropriate depth (generally below the root zone) prior to redistribution of topsoil, to accommodate desired plant species.
- c. Provide suitable surface and subsurface physical, chemical, and biological properties to support the long term establishment and viability of the desired plant community.
- d. Protect seed and seedling establishment (e.g. erosion control matting, mulching, hydro-seeding, surface roughening, fencing, etc.)

**7. Establish a desired self-perpetuating native plant community:**

- a. Establish species composition, diversity, structure, and total ground cover appropriate for the desired plant community.
- b. Enhance critical resource values (e.g. wildlife, range, recreation, etc.), where appropriate, by augmenting plant community composition, diversity, and/or structure.
- c. Select genetically appropriate and locally-adapted native plant materials based on the site characteristics and ecological setting.
- d. Select non-native plants only as an approved short term and non-persistent alternative to native plant materials. Ensure the non-natives will not hybridize, displace, or offer long-term competition to the endemic plants, and are designed to aid in the re-establishment of native plant communities.

**8. Reestablish complementary visual composition:**

- a. Ensure the reclaimed landscape features blend into the adjacent area and conform to the land use plan decisions.
- b. Ensure the reclaimed landscape does not result in a long-term change to the scenic quality of the area.

**9. Manage Invasive Plants:**

- a. Assess for invasive plants before initiating surface disturbing activities.
- b. Develop an invasive plant management plan.
- c. Control invasive plants utilizing an integrated pest management approach.
- d. Monitor invasive plant treatments.

**10. Develop and implement a reclamation monitoring and reporting strategy:**

- a. Conduct compliance and effectiveness monitoring in accordance with a BLM- (or other surface management agency-) approved monitoring protocol.
- b. Evaluate monitoring data for compliance with the reclamation plan.
- c. Document and report monitoring data and recommend revised reclamation strategies.
- d. Implement revised reclamation strategies as needed.
- e. Repeat the process of monitoring, evaluating, documenting/reporting, and implementing, until reclamation goals are achieved.