



Technical Analysis and Findings

Utah Coal Regulatory Program

May 10, 2016

PID: C0070042
TaskID: 5090
Mine Name: STAR POINT REFUSE
Title: MIDTERM PERMIT REVIEW

Summary

On March 1, 2016 the Division notified Gerald Hascall of Sunnyside Cogeneration Associates (the Permittee) of the commencement of Star Point Waste Fuel Refuse's mid-term review. The requisite site visit inspection was conducted by the Division on April 5, 2016 and is documented under Inspection Report ID #5487. The mid-term review will analyze the following items:

- A. Review of the Plan to ensure that the requirements of all pennit conditions, division orders, notice of violations (NOV), abatement plans, and pennitnee-initiated Plan changes approved subsequent to pennit approval or renewal (whichever is the most recent) are appropriately incorporated into the Plan document.
- B. Ensure that the Plan has been updated to reflect changes in the Utah Coal Regulatory Program which have occurred subsequent to pennit approval or renewal.
- C. Review applicable portions of the pennit to ensure that the Plan contains commitments for application of the best technology currently available (BTCA) to prevent additional contributions of suspended solids to stream flows outside of the pennit area.
- D. Evaluate the compliance status of the pennit to ensure that all unabated enforcement actions comport with current regulations for abatement; verify the status of all finalized penalties levied subsequent to pennit issuance or pennit renewal, and verify that there are no demonstrated patterns of violation (POV). This will include an AVS check to ensure that Ownership and Control infonnation is current and correct.
- E. Evaluate the reclamation bond to ensure that coverage adequately addresses permit changes approved subsequent to permit approval or renewal, and to ensure that the bond amount is appropriately escalated in current-year dollars.
- F. Evaluate the permit for compliance with variances or special permit conditions.
- G. Conduct a technical site visit in conjunction with the assigned compliance inspector to document the status and effectiveness for operational, reclamation, and contemporaneous reclamation practices undertaken on predetermined portions of the disturbed area to minimize, to the extent practicable, the contribution of acid or toxic materials to surface or groundwater, and to otherwise prevent water pollution.

Environmental Resource Information

General

Analysis:

The current MRP meets the State of Utah R645 requirements for General Environmental Resource Information in terms of engineering.

The current MRP meets the requirements of R645-301-521 due to information stated the mine plan details, tables, and maps in Volume 3, Section 500.

cparker

Permit Area

Analysis:

The current MRP meets the State of Utah R645 requirements for the Permit Area.

The current MRP meets the requirements of R645-301-521.140 due to information stated in the mine plan details and Maps 521.100k and 521.100l, which match the provided legal description of the mine boundary. Volume 3 Section 521.124 and 521.140 include narratives detailing relevant Maps 521.100a and 521.100b.

cparker

Fish and Wildlife Resource Information

Analysis:

Fish and wildlife information for the star point refuse can be found in book 2 of 5 of the M&RP. Section 3, page 300-14 states, The current list of Utahs Federally Listed Threatened, Endangered, and Candidate Species lists the following species: However, the list is not current as it is from March 29, 2011. Table 322.210 should be replaced with an updated list. An updated list was acquired by the Division to facilitate this review and is attached to the mid-term (See IPaC Trust Resources Report- Star Point Refuse and Section 7 Consultation). The Permittee is responsible to determine if operations have the potential to impact any of the listed species and provide rational for that determination.

Habitat for Greater Sage-grouse should be added to Section 322.200 (page 300-21??). A very small portion of the permit area resides within the Carbon County Sage-grouse Management Area. Consultation with DWR has been initiated pursuant to Governor Herbert's Executive Order for Implementing the Utah Conservation Plan for Greater Sage-grouse. With no new surface disturbance, it is highly unlikely that mining operations could impact sage-grouse habitat. However, the Permittee should be aware of, and provide training to drivers, to be cautious of sage-grouse on the haul road to prevent possible collisions.

High-interest birds (starting page 300-22) must be updated to also include Western Yellow-Billed Cuckoo and Ferruginous Hawk.

The complex riparian systems required for Western Yellow-Billed Cuckoo do not exist within the permit area but the Fish and Wildlife Service have listed this species as having potential to occur and therefore, a narrative with rational of no-impact should be provided. The following narrative is a sample that could be used for Western Yellow-Billed Cuckoo:

Nesting habitat is classified as dense lowland riparian characterized by a dense sub-canopy or shrub layer (regenerating canopy trees, willows, or other riparian shrubs) within 100 m (333 ft) of water. Over story in these habitats may be either large, gallery-forming trees (10-27 m [33-90 ft]) or developing trees (3-10 m [10-27 ft]), usually cottonwoods. Nesting habitats are found at low to mid-elevations (750-1820 m [2500-6000 ft]) in Utah. Cuckoos may require large tracts (40-80 ha [100-200 ac]) of contiguous riparian nesting habitat; however, cuckoos are not strongly territorial and home ranges may overlap during the breeding season. Nests are usually 1.2-2.4 m (4-8 ft) above the ground on the horizontal limb of a

deciduous tree or shrub, but nest heights may range from 1-6 m (3-20 ft) and higher.

The Utah Conservation Data Center has occurrence records for Ferruginous Hawk nests within close proximity to the permit area. Again, because surface disturbance is limited to the existing refuse pile, it is highly unlikely that mining operations could impact this species. However, the Permittee should be aware of the species in the area. The largest potential impact to this species would be impacts by a dust plume. The following narrative is a sample that could be used for Ferruginous Hawk:

During breeding, flat and rolling terrain in grassland or shrub steppe is most often used. Ferruginous hawks avoid high elevations, forests, and narrow canyons, occurring in grasslands, agriculture lands, sagebrush/saltbush/greasewood shrub lands, and at the periphery of pinyon-juniper forests. Because of a strong preference for elevated nest sites, cliffs, buttes, and creek banks are usually present (Olendorff 1993). During winter, ferruginous hawks use open farmlands, grasslands, deserts, and other arid regions where lagomorphs, prairie dogs, or other major prey items are present (Olendorff 1993).

The Aquatic Resources section starting on page 300-25 should include a narrative in regards to the Divisions requirements to satisfy the 1996 Biological Opinion on Surface Coal Mining and Reclamation Operations for impacts to Federally Listed Colorado River Fish Species in the Green and Colorado River Basins and the Upper Colorado River, Endangered Fish Recovery Program. Specifically, water depletion calculations must be identified and if annual depletions are greater than 100AF, the Permittee is required to pay a one-time fee to the Recovery Program to mitigate impacts to the listed fishes.

Deficiencies Details:

The information provided is not considered adequate to meet the minimum regulatory requirements for R645-301-322. Prior to approval, the permittee must submit the following as an amendment to the M&RP:

- The Permittee must update the Threatened, Endangered, Candidate, and State Sensitive Species resource information in the M&RP, section 3, page 300-14 and table 322.210. (lists are provided by the Division and attached to this review)
- Update Section 322.200 to include Greater Sage-grouse.
- Update Section 322.200 to include resource information for high-interest birds (starting on page 300-22) Western Yellow-Billed Cuckoo and Ferruginous Hawk. Resource information is provided in the analysis of this section.
- Update Section 322.200, Aquatic Resources (page 300-25) to include a narrative on annual depletion rates and in compliance with the Colorado Fish Recover Program. If depletions exceed 100AF annual, the Permittee must identify actions taken to meet the requirements of the Recovery Program. (See attached Co Fish FWS Protocol for more information).

Ireinhart

Maps Affected Area Boundary Maps

Analysis:

The current MRP meets the State of Utah R645 requirements for Affected Area Boundary Maps.

The current MRP meets the requirements of R645-301-521.100 through-521.130 by having up to date relevant maps for the entire area shown on the mine plan as detailed on Maps 521.100a through 534.100f.

The current MRP meets the requirements of R645-301-521.110.R645-301-521.110 requires previously mined areas to be shown on cross sections and maps on Map 521.100g and 521.100h.

cparker

Maps Existing Structures and Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements for Existing Structures and Facilities Maps.

The current MRP meets the requirements of R645-301-521.120 which require a map clearly showing the location of all building in and within a1000 ft of the proposed permit area, along with identifying the current use of said building. Maps 521.100a through 521.100c show where surface mining activity occurs and Map 222.100c shows areas disturbed from mining operation before regulation of SMCRA. Section 521.120 of the MRP details said relevant maps.

Maps Existing Surface Configuration

Analysis:

The current MRP meets the State of Utah R645 requirements for Existing Surface Configuration Maps.

The current MRP meets the requirements of R645-301-521.150 as it includes a drawing or plate that clearly calls out the existing surface. Maps 521.100a through 521.100c show where surface mining activity occurs and Map 222.100c shows areas disturbed from mining operation before regulation of SMCRA. Section 521.120 of the MRP details said relevant maps.

cparker

Maps Mine Working

Analysis:

The current MRP meets the State of Utah R645 requirements for Mine Workings Maps.

The current MRP meets the minimum requirement of R645-301-521.140 which require maps that clearly show all mine plans. Map 521.100d shows areas affect according to the sequencing and timing of operations. No underground mining operations currently exist within the permit area.

cparker

Maps Permit Area Boundary

Analysis:

The current MRP meets the State of Utah R645 requirements for the Permit area and Boundary maps.

The current MRP meets the requirements of R645-301-521.140 as Volume 3 Section 521.124 and 521.140 include narratives detailing relevant Maps 521.100a and 521.100b. The existing MRP clearly states the permit boundary, lease boundary, and adjacent areas to the current mine plan.

cparker

Maps Surface and Subsurface Manmade Features

Analysis:

The current MRP meets the State of Utah R645 requirements for preexisting Surface and Subsurface Manmade features maps.

The current MRP meets the requirements of R645-301-521.122 as it includes a narrative in Section 521.122 that clearly calls out the existing surface and subsurface man made features within, passing through, or passing over the permit area. R645-301-521.120 through-521.125 requires maps to clearly show existing surface and subsurface facilities. Maps 521.100a and 521.100b so there are no sub-surface man made features within the permit area. An abandoned water well is within the Permit Area but is no longer used due to poor production.

cparker

Maps Surface and Subsurface Ownershiip

Analysis:

The current MRP meets the State of Utah R645 requirements for Surface and Subsurface Ownership Maps.

The current MRP meets the requirements of R645-301-521.130 which requires landowners, right of entry, and public interest maps. Exhibit 111.100a shows necessary right to access the subsoil area.

Operation Plan

Mining Operations and Facilities

Analysis:

AnALYSIS:

The current MRP meets all the State of Utah R645 requirements for Mining Operations and Facilities.

The current MRP meets the requirements of R645-301-523, -526, and 528 by including a description of the mining operation, method of coal mining, engineering techniques, anticipated annual and total production of coal by tonnage, and major equipment to be used for all aspects of those operations proposed to be conducted during the life within Section 521, 522, 523, 526, and 528. Approximately 100,000 to 300,000 tons per year of coal mine waste is excavated by SCA from within the Permit Area. Table 523.100a shows the estimated refuse excavation rates based on an average of 200,000 tons per year. Excavation at the site follows the methods and typical equipment described within Section 523.

cparker

Existing Structures

Analysis:

The current MRP meets the State of Utah R645 requirements for Existing Structures.

The current MRP meets the requirements of R645-301-526 by providing updated information to include the discussion of the existing buildings within the permit area. Specific items include the spoil, waste, coal development waste, and non-coal development waste, dams and embankments within the SCA presented on Maps 521.100a and 521.100b. All sediment ponds are shown on Maps 521.100a and 521.100b.

cparker

Relocation or Use of Public Roads

Analysis:

The current MRP meets the State of Utah R645 requirements for the Relocation or Use of Public Roads.

The current MRP meets the requirements of R645-301-521.133 due to information detailing measure to be used such as a general mining method that will be employed under or within 100 ft of public roads to protect interest of the public. Section 521.130 details mining operations within 100 feet of the right of way line of County Road No 290, but states that removing of the coal refuse will not significantly impact the traffic on the County Road. Maps 521.100a and 521.100b show the location of the Cty Road No 290. Section 526.116 details further steps taken by the Permittee to maintain the site to protect the public and private owners in the area. Culverts and ditches will be maintained to allow proper water flow with no plans to alter any natural drainage way.

cparker

Coal Recovery

Analysis:

The current MRP meets the State of Utah R645 requirements for Coal Recovery.

The current MRP meets the requirements of R645-301-522 due to a discussion of the measures to be used to maximize the use and conservation of the coal resources in Volume 3 Section 522. Mining activities include maximizing the use of conservation of the coal resources by gleaning the very least amount of heating value originally extracted from the coal measures.

cparker

Subsidence Control Plan Slides and Other Damage

Analysis:

The current MRP meets the State of Utah R645 requirements for Slides and Other Damage.

The current MRP meets the requirements of R645-301-515.100 with procedures already described within the existing MRP detailing the emergency contact procedures in the event of a slide in Volume 3 Section 515 and 516.

cparker

Topsoil and Subsoil

Analysis:

Analysis:

The Mining and Reclamation Plan meets the requirements of R645-301-230, soils handling operation plan. The location of subsoil pile is shown on Map 521.100d, SCA/Star Point Waste Fuel Refuse Pile Operation Plan Overview, and on Map 111.100a SCA/Star Point Waste Fuel Refuse Permit Boundary Survey. The volume of substitute topsoil was been surveyed at 192,000 cu yds by Cypress Plateau Mining Co. SCA estimates that 235,000 cu yds will be available during reclamation due to a swelling of the material. (The compaction factor of 0.3 was used based on published research (page 200-9.)

Section 234 describes topsoil storage. The topsoil is stockpiled with 2h:1v slopes and is vegetated. Exhibit 234 outlines the seed mix used in 1982 on the subsoil stockpile. A site visit on April 5, 2016 confirmed that the subsoil pile is well vegetated with grasses and shrubs, but it is heavily used by burrowing animals. These burrows have contributed to severe erosion rills down the face of the pile and through sediment control terraces. Sediment from the stockpile ultimately reports to a sediment basin (Section 234).

Under either reclamation scenario, all 235,000 CY of substitute topsoil/subsoil stockpiled will be returned to the disturbed area at final reclamation (MRP Section 542.700, Table 542.200b and and Maps 542.200 c & d.)

pburton

Road Systems Classification

Analysis:

The current MRP meets the State of Utah R645 requirements for Road Systems and Other Transportation Facilities.

The current MRP meets the requirements of R645-301-527.100 by classify each road as primary or ancillary. The Permittee utilized existing pads, primary roads, ancillary roads, and pit roads. Primary and ancillary roads within SCA are identified on maps 534.100a through 534.100h and labeled D, F, G, H, K, L, M and P. Table 527.100a details each road classification and frequency of use.

cparker

Road System Plans and Drawings

Analysis:

The current MRP meets the State of Utah R645 requirements for Transportation Plans and Drawings.

The current MRP meets the requirements of R645-301-534.100 by submitting plans and drawing for each road to be maintained within the permit area. Transportation facilities are shown on Maps 521.100a, 521.100b and 521.100c. Photos of the facilities are included in Exhibit 526.112a. The Permittee utilized existing pads, primary roads, ancillary roads, and pit roads. Primary and ancillary roads within SCA are identified on maps 534.100a through 534.100h and labeled D, F, G, H, K, L, M and P.

cparker

Road System Performance Standards

Analysis:

The current MRP meets the State of Utah R645 requirements for Performance Standards of roads within the permit area.

The current MRP meets the requirements of R645-301-534.150 by submitting plans and drawing for each road to be maintained within the permit area to prevent and control erosion. Table 527.100a details all Primary roads. Narrative in Volume 3 Section 527.210 details each primary road design characteristics and uses. Section 527.230 details that all road will be maintained in a safe condition and in the event of damage will be repaired as soon as practical.

cparker

Road System Certification

Analysis:

The current MRP meets the State of Utah R645 requirements for Primary Road Certification

The current MRP meets the requirements of R645-301-521.170 by submitting plans and drawing for each road to be prepared by or under the direction of and certified by a qualified registered professional engineer. Table 527.100a details all Primary roads. Narrative in Volume 3 Section 527.210 details each primary road design characteristics and uses.

cparker

Road System Other Transportation Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements for Other Transportation Facilities.

The current MRP meets the requirements of R645-301-521.170 by submitting plans and drawing for each road, conveyor, and rail system to be used within the proposed permit area. The railroad system near the SCA permit area consist of spur lines and main rail lines owned by Utah Railway Company. A small portion of railroad passes near the southeast corner of SCA but SCA does not control or utilize any trackage of said rail system.

cparker

Spoil Waste Disposals of Noncoal Mine Wastes

Analysis:

The current MRP meets the State of Utah R645 requirements for Spoil and Waste Materials.

The current MRP meets the minimum standards or R645-301-528.330 due to not changes in the MRP Volume 3 sections 512 stating the removal of all noncoal mine waste from the site. Concrete structures left at the site as detail in Section 528.332. all hazardous RCRA waste will be removed from the site and disposed of in an approved landfill.

cparker

Spoil Waste Coal Mine Waste

Analysis:

The current MRP meets the State of Utah R645 requirements for Coal Mine Waste.

The current MRP meets the minimum standards or R645-301-528.320 due to not changes in the MRP text Volume 3 Chapter 5 detailing the planed handling and removal designs of the coal mine waste to Sunnyside Cogen. Rejected waste will be disposed of in the area shown on Map 521.100a. map 521.100f details the location of the excess spoil which will be used to enhance the reclamation of the site at final closure. The designed capacity of the spoil is 145,000 cubic yards.

cparker

Spoil Waste Refuse Piles

Analysis:

The current MRP meets meet the State of Utah R645 requirements for Refuse Piles

The current MRP meets the minimum standards or R645-301-528.322 due to not changes in the MRP text Section 528.322. Refuse piles limits are shown on maps 521.100d and 521.100e. The refuse piles will maintain a maximum out slope of 27 degrees (2:1). The geotechnical investigation for the site was conducted in 1985 and is presented in Exhibit 528.322a of the

MRP. Map 542.200b details the coarse refuse pile reclamation meeting the original geotechnical requirements. The refuse piles was re-certified in 1990 by a Utah P.E. and is included in the MRP Exhibit 528.322b

cparker

Spoil Waste Impounding Structures

Analysis:

The current MRP meets the State of Utah R645 requirements for impounding structures.

The current MRP meets the minimum standards or R645-301-533 due to not changes in the MRP text Section 528.400 detailing none of the embankments will be constructed of coal mine waste. Pictures of the sediment ponds are found in Exhibit 526.112a. The design of each facility is shown in Map 733.120a, 733.120b, and 733.120j. The original pond designs are located in Exhibit 742.221i.

cparker

Spoil Waste Burning and Burned Waste Utilization

Analysis:

The current MRP meets the State of Utah R645-301-513.800 and R645-301-528.323 requirements due to no changes in the MRP text that no waste will be burned within the Permit area.

cparker

Spoil Waste Excess Spoil

Analysis:

The current MRP meets the State of Utah R645 requirements for excess spoil.

The current MRP meets the requirements of R645-301-512.210, R645-301-514.100, R645-301-521.143, R645-301-528, and R645-301-535.100 as there is no change in the approved MRP that states that no excess overburden spoil will be generated.

cparker

Hydrologic General

Analysis:

The current MRP meets the State of Utah R645 requirements for Hydrology. The plan was reviewed during the midterm and was found to use the best technology available to ensure no impacts to the hydrologic balance.

adaniels

Support Facilities and Utility Installations

Analysis:

The current MRP meets the State of Utah R645 requirements for Support Facilities and Utility Installations.

The current MRP meets the requirements of R645-301-521.180 and -526 the require the description, plans, and drawing for each support facility to be constructed, used, or maintained within the proposed permit area in Volume 3 Section 526. Map 521.100a and 521.100b show all mine structures and facilities. Descriptions and construction dates of the structure and facilities are contained in Table 526.111a. Maintenance of the facilities consists of periodic watering of gravel and dirt roads for dust suppression, periodic grading of gravel and dirt roads to eliminate potholes and maintain drainage, removal of coal waste from paved roads to prevent dust, and routine inspection of coal stockpiles for fires or hot spots. Exhibit 526.112a shows pictures of the current conditions of the structures detailed in Table 526.111a

cparker

Signs and Markers

Analysis:

The current MRP meets the State of Utah R645 requirements for Signs and Markers.

The current MRP meets the requirements of R645-301-521.200 by the general discussion of signs in Section 521.200-230. All signs and markers will be placed and maintained in compliance with the R645 regulations. This includes mine and permit identification signs, permit marks, stream buffer zone markers, and topsoil marks.

cparker

Explosives General

Analysis:

The current MRP meets the State of Utah R645 requirements for general Use of Explosives.

The current MRP meets the requirements of R645-301-524 by no changes made to the blasting plan of the MRP within the current MRP. No surface blasting is planned nor has be required for operations to date. There are no blasting or explosives stored or keep within the SCA permit area.

cparker

Maps Affected Area

Analysis:

The current MRP meets the State of Utah R645-301-521.100 requirements for Affected Area Maps.

The current MRP meets the requirements of R645-301-521.100 through-521.130 by having all the relevant maps for the entire area shown on the mine plan as detailed on Map 521.100d according to the sequence of mining

cparker

Maps Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements Mining Facilities Maps.

The current MRP meets the requirements of R645-301-521.120 through-521.125 which require maps to clearly show existing surface and subsurface facilities. There are no subsurface facilities located within the Permit Area. All surface facilities can be seen on Maps 521.100a through 521.100d including, coal handling facilities, topsoil storage areas, and roads.

cparker

Maps Mine Workings

Analysis:

The current MRP meets the State of Utah R645-301-521.140 requirements for Mine Workings Maps.

The current MRP meets the requirements of R645-301-521.140 which requires maps that clearly show all mine plans. The Permittee provides annual updates to the total removal of coal from the waste piles.

cparker

Maps Certification Requirements

Analysis:

The current MRP meets the State of Utah R645-301-512 Certification Requirements.

R645-301-512 requirements are met as all mine drawings and plates are stamped by a Utah certified professional engineer with experience in underground mining operations.

Reclamation Plan

General Requirements

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation Activities in terms of engineering.

The requirements of R645-301-540 are met within the current MRP as there is no change to the existing MRP reclamation details. Maps 542.200a through 542.200g detail the reclamation topography for the entire permit area, including plan and profile designs.

cparker

Approximate Original Contour Restoration

Analysis:

The current MRP meets the State of Utah R645 requirements for Approximate Original Contour Restoration.

The current MRP meets the minimum R645-301-512.200 , -553.110 through -553.150, and -302-270 due to the proposed post mining land use change that would not require a variance from approximate original contour (AOC) as the land will be restored to the original contour by the removal of the waste piles.

The current MRP meets the minimum R645-301-512.200 and -553.110 as there is no change in the MRP and all grading will be place back to approximate original contours.

cparker

Backfill and Grading General

Analysis:

The current MRP meets the State of Utah R645 requirements for Backfill and Grading.

The current MRP meets the general requirements of R645-301-553 as there is no change to the existing MRP grading reclamation details how disturbed areas will be backfilled and graded to achieve the approximate original contour, eliminate all highwalls, spoil piles, and depressions, and achieve a postmining slope that does not exceed either the angle of repose or such lesser slope as is necessary to achieve a minimum long term static safety factor of 1.3 and to prevent slides, minimize erosion and water pollution both on and off the site, and support the approved postmining land use. Table 542.100a details the general reclamation timetable for the site. All slopes will be regraded to no steeper than 3H:1V as shown on map 542.200a.

cparker

Backfill and Grading Previously Mined

Analysis:

The current MRP meets the State of Utah R645 requirements for Previously Mined Areas.

The requirements of R645-301-553.500 are met within the current MRP as there is no change to the existing MRP grading reclamation details. The Bonding scenario is for the existing refuse piles shown in table 542.200a. The total reclamation will be reduced after operational removal which is shown in table 542.200b.

cparker

Topsoil and Subsoil

Analysis:

Analysis:

The information provided meets with R645-301-242 Soil Redistribution requirements. Two reclamation scenarios have been described. Their similarities are as follows:

- Reclamation of the refuse under the either Final Reclamation or Bonding Scenario will require 235,300 loose cubic yards of substitute topsoil from the existing subsoil pile (Table 542.200a & b).
- Maps 542.200c & d shows the existing and final contours of the subsoil storage area under both Bonding and Final Reclamation Scenarios.
- Areas not currently under refuse (shop area, parking lot, etc.) will be explored for suitable substitute topsoil at reclamation (Section 224). Specific locations identified for evaluation as substitute topsoil are mentioned in Section 233.

The proposed reclamation contours of Maps 542.200c and d are based on the aerial photography taken in 1976, described on page 500-30 of the application and from the exploration conducted in 2001 (Exhibit 624.210a, personal communication with Scott Carlson, May 9, 2003). Map 542.200e illustrates the final contours of the subsoil pile and refuse pile for the final reclamation scenario.

Under the Final Reclamation Scenario, the Applicant will explore underneath the refuse pile for suitable substitute topsoil at reclamation (Section 224). Specific locations identified for evaluation as substitute topsoil are mentioned in Section 233. Table 542.200a itemizes the reclamation cut/fill volumes.

Section 534 describes the construction of additional roads for access to the Subsoil Area to improve the operation of hauling topsoil. The designs for this road are shown on Map 534.100a. Plans for soil salvage during future road development are described in Section 232.

Compacted areas will be ripped a minimum of twenty-four inches deep prior to substitute topsoil placement (Section 242). All areas will be roughened with gouging (Section 242 and 553.100). Maps 542.200f & g outline the areas to be ripped and gouged. Basically, the flat surface of the refuse pile and severely compacted areas such as the asphalt parking lot and the building foundations will be ripped and all areas including regraded slopes will be gouged. Track-mounted equipment will be utilized for spreading substitute topsoil (Section 242 and 553.100 and Maps 542.200f & g). Areas that are not presently covered with refuse will not receive substitute topsoil cover. The substitute topsoil will be replaced at a uniform thickness.

There are 235,000 CY of substitute topsoil/subsoil stockpiled for final reclamation, all of which will be returned to the disturbed area at final reclamation (MRP Section 542.700, Table 542.200b and and Maps 542.200 c & d.).

Fertilizer will not be used. A healthy nitrogen balance will be achieved over time with the inclusion of native legumes in the seed mix, rather than with fertilization.

Based on discussions and emails that took place during the mid-term inspection (4/5/2016 and 4/6/2016), it appears that the west half of Area A could be down to native ground in 4 - 6 years. At that time a twenty five acre area could be contemporaneously reclaimed.

pburton

Road System Reclamation

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation of Roads.

The requirements of R645-301-534 are met within the current MRP as there is no change to the existing MRP reclamation of roads throughout the permitted area. All roads within the permit area will be reclaimed as shown on Map 542.200a.

cparker

Hydrological Information Reclamation Plan

Analysis:

The information provided in the application meets the minimum Hydrologic Reclamation requirements of the regulations.

Table 624.200c presents information on the acid/toxic nature of the refuse. Exhibit 624.230a presents an evaluation of the acid and toxic forming properties of overburden and coal refuse material in the refuse pile. The waste has the potential to become acidic based upon pyritic sulfur values. Three of twenty samples have levels of plant available selenium in the

surface three inches in exceedance of the recommended 0.1 ppm limit. Six of the twenty nine samples approach the limit for Boron established in the Division's 1988 Guidelines for the Management of Topsoil and Overburden.

During operations, the coal mine waste will be routinely sampled for characteristics of combustion, but not for acid/toxic forming properties. In the bonding spreadsheet, there is a provision for 25 samples to be taken from the site for acid/toxic analyses at final reclamation. The reclamation plan indicates in Section 542.700 that these samples will be taken from the surface of the Bonding Scenario refuse pile to monitor for acid/toxic properties just prior to final reclamation. The plan specifies one sample per acre will be taken and describes the parameters to be sampled.

Exhibit 830.100a, Bonding Scenario Reclamation Cost Estimate, outlines 25 samples to be taken for acid/ toxic evaluation and 10 other soil samples for vegetation purposes. The acid/toxic parameters will be run on soils in the 2.7 acre disposal area and the refuse pile. The other 10 samples will be drawn from areas that will receive no additional cover soil (as shown on Map 542.200g). These areas will be sampled as follows: a visual check for oil & grease; testing for soil growth parameters, and compaction (section 242).

pburton

Contemporaneous Reclamation General

Analysis:

The current MRP meets the State of Utah R645 requirements for Contemporaneous Reclamation.

The requirements of R645-301-553 of backfill and grading are met within the current MRP as there is no change to the existing MRP grading reclamation details.

cparker

Stabilization of Surface Areas

Analysis:

Analysis:

The information provided in the application meets with R645-301-244, stabilization of surface areas. Erosion control measures include surface roughening, mulching, and gouging (Section 242). Map 742.100 Alternate Sediment Controls illustrates the details of construction of surface roughening/benching, silt fencing, rock check dams, sediment traps water bars, berms, and straw bale check dams. As stated in Section 542.200, under the heading "Sedimentation Pond Removal and Interim Sediment Control," use of these structures during final reclamation will be utilized in the locations shown on Maps 731.720a (drainages) and 731.720b (culverts), with field changes made as necessary; Map 542.200c shows proposed locations on the Subsoil stockpile. Installation of straw bales and silt fences will be according to the illustration in Figure 542.200a.

The application indicates that rocks found during excavation of the refuse pile may be separated and stockpiled for final placement on the reclaimed slopes (Section 528.300-321). The use of large coarse fragments on the surface of the reclaim site will help prevent erosion of the substitute topsoil that is high in clay and susceptible to erosion. The rock fragments will also help to blend the site with the undisturbed surroundings.

The MRP states that two tons per acre of Utah certified noxious weed free hay or straw will be incorporated with gouging into the growth media. The area will most likely be hydroseeded. This hydroseeding will also include 1,000 pounds per acre of wood fiber hydromulch and 120 pounds per acre of tackifier. (pg. 300-34). Erosion netting may be used in certain areas if necessary.

pburton

Cessation of Operations

Analysis:

The current MRP meets the State of Utah R645 requirements for Cessation of Operations

The requirements of R645-301-515 and -541 are met within the current MRP as there is no change to the existing MRP plan of communication with the appropriate parties in the event of the cessation of operations and final reclamation.

cparker

Maps Bonded Area

Analysis:

The current MRP meets the State of Utah R645 requirements for Bonded Area.

The requirements of R645-301-800 are met within the current MRP as the bonded area map is up to date on Map 542.200a through 542.200f.

cparker

Maps Reclamation Backfilling and Grading

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation Backfilling and Grading Maps.

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan of backfilling and grading areas or volumes shown in Tables 542.200a and 542.200b.

cparker

Maps Reclamation Facilities

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation Facilities Maps

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan of facilities that will remain post mining operations as shown on Maps 542.200a through 542.200g.

cparker

Maps Reclamation Final Surface Configuration

Analysis:

The current MRP meets the State of Utah R645 requirements for Final Surface Configuration Maps.

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan of the estimated final surface configuration back to AOC as shown on Map 542.200g.

cparker

Maps Reclamation Surface and Subsurface Man Made

Analysis:

The current MRP meets the State of Utah R645 requirements for Reclamation of Surface and Subsurface Manmade Features Maps.

The requirements of R645-301-542 are met within the current MRP as there is no change to the existing MRP plan in the surface and or subsurface manmade features within the permit area in Maps 542.200a through 542.200g.

cparker

Maps Reclamation Certification Requirements

Analysis:

The current MRP meets the State of Utah R645 requirements for Certification Requirements

R645-3010-512 requirements are met as all mine drawings and plates are stamped by a Utah certified professional engineer with experience in underground mining operations.

Bonding Determination of Amount

Analysis:

The midterm review of the MRP does not meet the State of Utah R645 requirements for Determination of Bond Amount.

The midterm review of the MRP does not meet the minimum requirements of R645-301-830.140 as the Permittee has not submitted detailed bond information in regards to the midterm review of the MRP.

The Division requires an evaluation of the reclamation cost estimate during each midterm permit review. This cost estimate is then escalated for five years or until the next midterm review. In accordance with the requirements of R645-301-830, and -301-830.140, it is the Permittees responsibility to provide detailed estimated cost sheets to support the reclamation cost estimate.

The Permittee must update the unit cost data used in the 2011 Midterm Permit Review reclamation cost estimate to 2016 unit costs using the 2016 R.S. Means Heavy Construction Cost Data manual. All computation sheets for demolition, earthwork and re-vegetation must be updated and submitted to the Division so the Division can determine the required bond amount needed through 2021.

The total reclamation cost for the Star Point Mine (sum of the direct and indirect costs) must be escalated from 2016 to 2021 (5 years) using an escalation factor of 0.7 %.

This escalated cost is rounded to the nearest \$ 1,000 to determine the amount of required bond which must be posted with the Division by the Permittee.

WHY and HOW

The demo sheet is missing the line item cost of lined ditches that currently exist at the site. The Permittee needs to add an additional sheet showing line item reclamation cost of all ditches, including in the table information such as length, cross section, lined/unlined, lining material, and calculations for demolition and reclamation.

The earthwork sheet needs to be specific and identify topsoil/subsoil from Subsoil Pile, including CY's or tons of soil being used from Subsoil Pile for reclamation, if any, and/or other soil needed for reclamation.

Deficiencies Details:

R645-301-830, and -301-830.140: The Permittee will submit line item updated Totals, Demo, Earth, and Reveg using 2016 cost reference.

R645-601-830.140 The Permittee must provide updated information for estimated bonding costs with supporting calculations for the estimates. This includes updated unit costs (to be used to update bond calculation spreadsheets) and updated escalation factors. Updates should be provided using the 2016 data from R.S. Means Heavy Construction Cost data manual and the Caterpillar Handbook or other appropriate resources. The bond summary and corresponding bond calculation sheet in the MRP need to be updated and appropriately escalated to 2021 dollars using Division's approved 0.7% and 5 year escalation.

R645-301-830, and -301-830.140: The Permittee will submit a "Diversion Ditch" itemized sheet to Demo showing all information for all ditches such as; length, cross section, area, lined/unlined, and lining material as well as cost to reclaim. Demo volumes need to be calculated and shown.

R645-301-830 and -301-830.140: The Permittee will submit an earthwork sheet specific to identify topsoil/subsoil from Subsoil Pile, including volumes of soil being used from Subsoil Pile for reclamation, if any, and/or other soil needed for reclamation.

bwiser

Bonding Terms and Conditions Liability Insurance

Analysis:

The amendment meets the State of Utah R645 requirements for Terms and Conditions for Liability Insurance.

The amendment meets the minimum requirements of R645-301-850 as the applicant currently holds liability insurance through Federal Insurance Company effective until 8/1/16. The insurance includes the required Marsh from, explosives and claims made per occurrence.

bwiser

0005

General Correspondence Incoming
cc: Dana
Joe
Ingrid K



United States Department of the Interior
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE
2369 WEST ORTON CIRCLE, SUITE 50
WEST VALLEY CITY, UTAH 84119

In Reply Refer To
FWS/R6
ES/UT
10-TA-0005

January 22, 2010

Daron Haddock
Permit Supervisor; Coal Program
Utah Department of Natural Resources
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801

RE: Satisfying the 1996 Biological Opinion on Surface Coal Mining and Reclamation Operations for Impacts to Federally Listed Colorado River Fish Species in the Green and Colorado River Basins, Utah

Dear Mr. Haddock:

The purpose of this letter is to establish species-specific standards and procedures to protect federally listed Colorado River fish species from impacts related to coal mining operations in the upper Colorado River basin of Utah. The species-specific standards and procedures described in this letter are designed to fulfill the requirements under the 1996 Biological Opinion on Surface Coal Mining and Reclamation Operations (1996 BO), satisfying the responsibilities of the Utah Division of Oil, Gas, and Mining (UDOGM) and the US Fish and Wildlife Service (Service). The standards and procedures will provide minimum permitting and performance standards for protection and enhancement of the federally endangered Colorado pikeminnow (*Ptychocheilus lucius*), humpback chub (*Gila cypha*), bonytail (*Gila elegans*), and razorback sucker (*Xyrauchen texanus*) and their designated critical habitat (Colorado River fish species) when coal operations occur in the Green and Colorado River basins and are greater than 10 miles from designated critical habitat. This letter does not discuss standards and procedures for any other species, nor does it discuss standards and procedures for coal operations less than 10 miles from designated critical habitat. Projects that are within 10 miles of critical habitat may have additional impacts that would not be covered under the 1996 BO.

RECEIVED

JAN 26 2010

DIV. OF OIL, GAS & MINING

The 1996 Biological Opinion

On March 21, 1995, the Office of Surface Mining (OSM) requested formal consultation regarding the continuation and approval of surface coal mining and reclamation operations under State and Federal regulatory programs. A Biological Opinion and Conference Report were completed by the Service on September 24, 1996. The 1996 BO established guidance for complying with both the Surface Mining Control and Reclamation Act of 1977 (SMCRA) and the Endangered Species Act of 1973 (ESA). The Service concluded that the implementation of surface mining activities consistent with regulations (30 CFR Part 700 to end) is not likely to jeopardize the continued existence of any threatened, endangered, or proposed species or result in adverse modification of designated or proposed critical habitats. This conclusion was predicated on implementation of the requirements described in the document and the terms and conditions set forth in the incidental take statement. Fulfilling the responsibilities outlined in the 1996 BO achieves ESA compliance for all federally-related activities by the Regulatory Authority, be it the State or OSM.

The following is a summary of the requirements of the 1996 Biological Opinion on Surface Coal Mining and Reclamation Operations:

A. General Requirements

1. The review and issuance of permits must include the consideration of listed resources.

B. Pre-Application

1. The Service Field offices will distribute and update a list of species and critical habitat and specific protection measures needed for these species and critical habitat to OSM and the Regulatory Authority.
2. The Regulatory Authority will determine whether a listed species or critical habitat is present in a proposed permit area or adjacent area based on the list provided by the Service.
3. When listed species or critical habitat are present in the permit area or adjacent area, the Regulatory Authority will coordinate with the Service and State Wildlife Agency to determine the scope and level of detail of resource information contained in a permit application.
4. The Regulatory Authority will provide to the applicant an explanation of the scope and level of detail necessary to complete the resource information in the permit application.

C. Permit application package

1. The Applicant shall include the following resource information in permit applications for listed or proposed species or their critical habitat:
 - a. Site-specific resource information.
 - b. A protection and enhancement plan that describes how the operator will minimize disturbances and adverse impacts:
 - i. Protective measures during the active mining phases of the operation.

- ii. Enhancement measures during the reclamation and post-mining phase of the operation.
2. The Service will review the resource information in the permit application. The Service requests the information from the Regulatory Authority which is to be provided within 10 days of the request.
3. OSM, State Regulatory Authorities, and the Service must develop additional species-specific or site-specific standards and procedures to protect listed resources.
4. The Regulatory Authority will quantify take of listed species resulting from mining operations. Quantification of take occurs on a permit-by-permit basis.
5. The Service will develop, in close coordination with OSM and the State regulatory Authority, any necessary site-specific measures to minimize potential take. The measures must be enforceable under the mining permit.
6. The Regulatory Authority will provide to the Service a written explanation whenever the authority decides not to implement species-specific measures recommended by the Service. The Service provides a concurrence letter to the Regulatory Authority if the Service concurs with the Regulatory Authority's action. If the Service does not concur with the Regulatory Agency's action an, elevation process will be used to reach agreement on the implementation of the species-specific measures.

D. Notification of Receipt of Complete Permit Application and Subsequent Permitting Actions

1. The Regulatory Authority will notify the Service of completed application, a significant revision to a permit, or a renewal of a permit.

E. Written Findings

1. As a precondition for approval of a permit application, the Regulatory authority will find, in writing, that the mining operation will not jeopardize listed species or result in adverse modification of critical habitat, based on the information in the mining application.
2. The Regulatory Authority will make a written finding that the exploration and reclamation activities will not jeopardize the continued existence of an endangered species or threatened species or result in destruction or adverse modification of critical habitat of those species.

F. Notification of Decision

1. The Regulatory Authority will notify the Service, in writing, concerning decision made on permit issued that the Service has offered comments.

G. Performance Standards

1. The Operator determines whether a listed species is present in the permit area or adjacent area during the pre-application phase of the operation or, if new information is presented at any time during the mining operation.
2. The Regulatory Authority consults with the State and the Service when the Operator determines that a listed species occurs in the permit area. The Regulatory Authority, in consultation with the Service, must identify whether, and under what conditions, the operator may proceed with the operation if listed species occur in the permit area.

3. The Operator shall use the best available technology to minimize disturbance of and adverse impacts to fish, wildlife, and related environmental values and shall achieve enhancement of these same resources where practicable.
4. The Operator will not jeopardize listed species or adversely modify critical habitat during mining operations.
5. The Regulatory Authority must notify the Service within one working day if a dead or impaired individual of a listed species is found in the permit area or in adjacent areas.
6. OSM and the Regulatory Authority must regulate the mining activity covered by the incidental take statement in the 1996 BO and in site-specific incidental take statements. The protective coverage for the operator against the unlawful take of listed species may lapse if the regulatory authority fails to require permittees to adhere to, or if OSM fails to monitor compliance with, the terms and conditions of the incidental take statement.
7. The Regulatory Authority must implement any species-specific protective measures to minimize anticipated incidental take. The Regulatory Authority must also require compliance by the operator with the species-specific protective measures.

H. Coal Exploration

1. The Applicant will include a description of any listed species within proposed exploration areas in exploration permits.
2. The Regulatory Authority shall only approve coal exploration permits if the Applicant has demonstrated that the action will not jeopardize listed species or adversely modify critical habitat.
3. The Operator will not disturb critical habitat during coal exploration as part of the performance standards.

I. Midterm Permit Review and Permit Renewal

1. The Regulatory Authority must require a reasonable revision of a permit at any time if the operation is not in compliance with the species protection provisions of the approved regulatory program.

J. Conservation Recommendations

1. The Service will recommend discretionary conservation recommendations to OSM in order to minimize or avoid adverse effects of the mining operation to listed species.

K. Reinitiation of Consultation

1. Reinitiation of consultation may be requested by OSM or the Service if
 - a. new information indicates that the approval or conducting of mining operation and reclamation is affecting listed species or modifying critical habitat in a manner or extent not considered in the 1996 BO or
 - b. the approval or conducting of mining operation and reclamation is modified in a manner not considered in the 1996 BO that causes an adverse effect to listed species or critical habitat.

L. Cumulative Effects

1. The Applicant, in cooperation with the regulatory authority, must analyze cumulative impacts of mining operations at the site-specific level if listed resources are present in the action area.

In fulfillment of A.1, this letters communicates the processes that must occur to meet the above requirements for federally listed Colorado River fish species in Utah.

Endangered Colorado River Fishes

The Colorado pikeminnow, razorback sucker, humpback chub and bonytail are endangered fish species that once thrived in the Colorado River system. These fish species are now endangered in part because of human impacts on their habitat over the past 100 years. The two types of habitat alterations that appear to have had the greatest impact on the endangered fish species have been water development and introduction of non-native fishes. Specifically, hundreds of dams, diversions and other barriers have been constructed, river flows have been cut by a third, and more than 40 species of non-native fish have been introduced in the upper Colorado River basin.

Critical habitat for these species was established on March 21, 1994 (59 FR 13374). In Utah, designated critical habitat includes portions of the San Juan, Green, Colorado, White and Duchesne Rivers and their 100-year floodplains (Appendix A). All four of the listed Colorado River fish require the same Primary Constituent Elements (PCEs) of critical habitat essential for their survival: water, physical habitat, and the biological environment. This includes a quantity of water of sufficient quality that is delivered to a specific location in accordance with a hydrologic regime that is required for the particular life stage for each species. The physical habitat includes areas of the Colorado River system that are inhabited or potentially habitable for use in spawning and feeding, as a nursery, or serve as corridors between these areas. In addition, oxbows, backwaters, and other areas in the 100-year floodplain, when inundated, provide access to spawning, nursery, feeding, and rearing habitats. Food supply, predation, and competition are important elements of the biological environment.

Upper Colorado River Endangered Fish Recovery Program

Because water depletions from the upper Colorado River basin are a major factor in the decline of the endangered fishes, the Service initially determined that any depletion will jeopardize their continued existence and will likely contribute to the destruction or adverse modification of their critical habitat (US Fish and Wildlife Service, Region 6 Memorandum, dated July 8, 1997). To address depletion issues, the Department of the Interior, the states of Wyoming, Colorado and Utah, and the Western Area Power Administration established the Recovery Implementation Program for Endangered Fish Species in 1988.

Called the Upper Colorado River Endangered Fish Recovery Program (Recovery Program), this effort involves federal, state and private organizations and agencies in Colorado, Utah, and Wyoming. The program complies with all applicable laws, including the federal Endangered

Species Act, state water laws, river laws, and interstate water compacts. Recovery strategies include conducting research, improving river habitat, providing adequate stream flows, managing non-native fish, and raising endangered fish in hatcheries for stocking.

In order to further define and clarify the process in the Recovery Program, a section 7 agreement (Agreement) was implemented by the Recovery Program participants on October 15, 1993. The agreement stipulated that the Recovery Program acts as the reasonable and prudent alternative (RPA) for depletion impacts in the Upper Colorado River Basin, in order to avoid jeopardy to the endangered fishes. Incorporated into this agreement is a Recovery Implementation Program Recovery Action Plan which identifies actions required to recover the endangered fishes in the most expeditious manner.

After many years of successful implementation of the Recovery Program and Agreement, federal action agencies have come to anticipate Recovery Program activities and a requirement of a financial contribution (also known as a depletion fee) toward these activities serving as the RPA that must be included in their project planning to avoid jeopardy to listed species. Thus, the RPA has essentially become part of the proposed action. Consequently, the Recovery Program activities now serve as conservation measures within the proposed action and minimize adverse effects to listed species or critical habitat. Because of this conservation measure, the Service can now make the determination that water depletions in the Colorado River basin may affect and are likely to adversely affect the Colorado River fish species, which is a non-jeopardy determination.

As mentioned above, included in the Recovery Program was the requirement that a one-time depletion fee would be paid to help support the Recovery Program. This figure was set at \$10.00 per acre-foot (AF) based on the average annual depletion of the project and is adjusted annually for inflation (the FY2010 figure is \$18.99 per AF). However, on July 8, 1997, the Service issued an intra-Service biological opinion determining that the depletion fee for average annual depletions of 100 AF or less are no longer required because the Recovery Program has made sufficient progress and now is the reasonable and prudent alternative to avoid the likelihood of jeopardy to the endangered fishes and to avoid destruction or adverse modification of their critical habitat. It is important to note that these provisions of the Recovery Program were based on appropriate legal protection of the instream flow needs of the endangered Colorado River fishes.

Satisfying the 1996 BO for Federally Listed Colorado River Fishes in Utah

Using the requirements summary above, the following standards and procedures will satisfy the 1996 BO for federally listed Colorado River fishes in Utah.

A. General Requirements

The Service and UDOGM have cooperatively discussed instituting a clear, standardized system for considering impacts to the federally listed Colorado River fish species from coal-mining operations, satisfying requirement A.1. This letter describes the outcomes of these discussions and the specific steps each agency must take to meet the above requirements.

B. Pre-Application

Satisfying requirement B.1, the Service maintains a list of endangered, threatened, proposed, and candidate species that occur in each Utah county. This list can be accessed on the internet at <http://www.fws.gov/mountain-prairie/endspp/countylists/utah.pdf>. For Colorado River fish species, UDOGM must determine in what river basin coal-mining operations occur. If operations occur in any part of the Green or upper Colorado River basins (Appendix A), UDOGM shall then determine that operations could have impacts to Colorado River fish species (B.2). UDOGM shall then follow the guidance in this letter to determine the scope and level of resource information contained in a permit application (B.3) and will provide an explanation of this to the applicant (B.4).

C. Permit Application Package

The Service and UDOGM have agreed on site-specific standards and procedures to protect the Colorado River fish species (C.3). The vast majority of coal mining occurs in headwater areas, far from designated critical habitat. Impacts to the fish species from these operations are limited to water depletions and possible water discharges. Standards and procedures that relate to water depletions are in accord with the Recovery Program and are consistent with Service consultation processes for other industries (agriculture, oil and gas developments, etc.). Standards and procedures that relate to possible water discharges are consistent with state water quality requirements. However, in the event that a coal mining operation occurs within 10 miles of designated critical habitat, which includes the 100-year floodplain, the simplified process described below does not apply and individual project consultation must occur.

For operations occurring within the Green or Colorado River basins, the Service requires that specific resource information be provided in the permit-application package. Site specific resource information (C.1.a) must include a complete description of:

- The project's water right, including source (if leased from another water right holder), duration of use, and amount (calculated for annual use in acre-feet);
- Any planned changes to the hydrologic condition of the site outside of the water right consumption, such as planned water discharges (amount and duration), known aquifer encounters, de-waterings of streams and changes in channel course; and
- The project location, which should include:
 - A site map with project boundaries and areas of disturbance clearly marked;
 - USGS 8-digit Hydrologic Unit Code (HUC) of all watersheds in which the project will occur¹; and
 - Distance (in river-miles) from project location to nearest designated critical habitat reach.

¹ A description of the HUC system can be found at <http://water.usgs.gov/GIS/huc.html> and a list of HUCs for the state of Utah can be found at http://water.usgs.gov/GIS/huc_name.html

A protection and enhancement plan describing the minimization of disturbances and adverse impact must be filed with the permit application package (C.1.b). Information that must be included in the plan's description (C.1.b.i) includes:

- Protective measures describing the water quality of all water (planned or potential) that is released during the operation of the mine.
 - For example, a description of state water quality requirements for released water will allow the Service to determine if water quality is ecologically suitable for aquatic species;
- Enhancement measures describing the reclamation of mining sites and mine closure.
 - Disturbed areas (work site(s), stockpile site(s), pit) should be revegetated when appropriate after operations with native plants or certified weed-free native seed. The planting should be monitored for success. If the planting fails it should be reseeded/planted;
- Protective measures describing response to accidental pollution spills; and
- Enhancement measures describing how local water quality will be maintained after mine closure, including the prevention of mine drainage.

Conservation measures (C.3) implemented to offset water depletions in the upper Colorado River basin will follow the Upper Colorado Basin Endangered Fish Recovery Program, under the following procedure:

- I. The Service and UDOGM will assume that the coal mining operations will fully use their allotted annual water right. They will calculate the project's annual depletion as that amount for Section 7 of the Endangered Species Act purposes and in order to calculate the depletion fee.
 - a. Although a coal operation may use less water than this amount, it is very difficult to calculate a coal operation's annual water usage in advance because coal operations may change as conditions warrant. Because Section 7 consultation must occur before a project may begin and because a depletion increase of 10% will re-initiate consultation, it is likely that a project may require multiple consultations. Consulting on the maximum possible annual depletion allowed under the applicant's water right will serve to reduce the number of consultations, cover all projects activities, and simplify the process.

- II. If the operations will occur in the Green or upper Colorado River Basins, the coal operator will submit the one-time depletion fee before operations may begin. The depletion fee only serves as a conservation measure for the project's depletion. Additional conservation measures (C.3) must be enacted if further project related impacts are present. Payment must be made to the National Fish and Wildlife Foundation and mailed to:

National Fish and Wildlife Foundation
1133 15th Street, NW
Suite 1100
Washington, DC 20005

- a. Annual water depletions under 100 AF do not require a depletion payment, as described above.
- b. Annual water depletions above 100 AF and less than 4500 AF will be charged the fiscal year rate (adjusted annually). For FY 2010 the rate is \$18.99 per AF. UDOGM will check with the Service in August of each year for the new fiscal year rate.
- c. Annual depletions above 4500 AF will require an individual project consultation, as the depletion fee does not serve as a conservation measure for such large depletions.

III. The Service will be notified of all depletions, whether they require a fee or not, in order to continue to track the total depletions occurring in Utah.

IV. The applicant may use discharged water to offset depletion amounts. In order for a discharge to have no effect on the Colorado River fish species, and therefore be allowed to offset any project depletions, the water must be of suitable quality for aquatic species. The applicant must document the following:

- a. The volume of expected mine water discharge;
- b. The stream course into which the water is released, ensuring that the water is discharged in a manner that contributes to upper Colorado River basin flows;
- c. The discharged water conforms to all applicable water right law; and
- d. The discharged water meets all state and federal water quality parameters, thus making the water suitable for aquatic species:
 - i. Water Quality of the State (Utah Administrative Code: Rule R317-2²) for each individual surface water body based on Use Designations (R317-2-6) and corresponding Numeric Criteria (R317-2-14);
 - ii. Utah Division of Water Quality Ground Water Quality Standards³; and
 - iii. Utah Pollution Discharge Elimination System (UPDES) permits.

V. UDOGM has the discretion to determine whether a proposed coal mining activity constitutes a depletion. A guide for determining depletions is provided by UDOGM's "Water Depletion For Coal Mining Operations". When these determinations are made, UDOGM will provide the Service with a brief description of the reasons behind the determination.

UDOGM shall quantify take (C.4) as the level of water reduction from the upper Colorado River basin. Estimating the number of individuals of these species that would be taken as a result of the water depletions is difficult for a number of reasons, therefore it is standard Service practice to quantify take as a measure of the water depletion.

² Available at <http://www.rules.utah.gov/publicat/code/r317/r317-002.htm#T16>

³ Available at <http://www.waterquality.utah.gov/GroundWater/gwstandards.htm>

D. Notifications and Subsequent Permitting Actions

UDOGM will notify the Service of a complete application, a significant revision to a permit, or a renewal of a permit.

E. Written Findings

For proposed permit applications, UDOGM will submit a written finding stating that the proposed mining operations, exploration and reclamation will not jeopardize the continued existence of listed species or adversely modify critical habitat.

F. Notification of Decision

UDOGM will notify the Service concerning any decisions made concerning permits on which the Service has commented. UDOGM will also notify the Service of any significant pollution spills that occur, so that the Service can assess the impacts of the spill. The Service will provide UDOGM a written letter either concurring with UDOGM's written findings or providing additional conservation methods within 30 days of receipt of UDOGM's letter.

G. Performance Standards.

For coal operations that occur greater than 10 miles from designated critical habitat for Colorado River Fish Species, following the depletion and discharge guidelines outlined in this document will satisfy the requirement of G.4, in which the operator must not jeopardize listed species or adversely affect critical habitat.

H. Coal Exploration

The Applicant will include a description of any listed species within proposed exploration areas in exploration permits. UDOGM shall only approve coal exploration permits if the Applicant has demonstrated that the action will not jeopardize listed species or adversely modify critical habitat. The Operator will not disturb critical habitat during coal exploration as part of the performance standards.

I. Midterm Permit Review and Permit Renewal

UDOGM must require a reasonable revision of a permit at any time if the operation is not in compliance with the species protection provisions of the approved regulatory program.

J. Conservation Recommendations

The Service has no specific discretionary conservation measures that apply to all projects that have not already been discussed in this document.

K. Reinitiation of Consultation

Consultation will be reinitiated under guidelines K.1.a & b (found above) and under 50 CFR 402.16, which states:

“Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

- a) If the amount or extent of taking specified in the incidental take statement is exceeded;
- b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or
- d) If a new species is listed or critical habitat designated that may be affected by the identified action.”

Under reinitiation criteria b, if a permitted coal operation plans to increase the water depletion by more than 10% of that already approved in the Mining and Reclamation Plan, then reinitiation must occur unless a mine water discharge offset can be demonstrated. (C-IV, page 10)

Cumulative Effects

The Applicant, in cooperation with UDOGM, must analyze cumulative impacts of mining operations at the site-specific level if listed resources are present in the permit or adjacent area.

Other Requirements

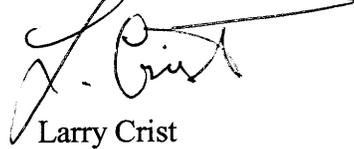
Some projects may not be covered under this guidance document and will require separate consultation. This includes, but is not limited to coal operations that may jeopardize the species through impacts not covered in this document and that occur within 10 miles of designated habitat.

Conclusion

This completes the Service’s communication of standards and procedures required to satisfy the 1996 BO for Colorado River Fishes. We appreciate UDOGM’s commitment in the conservation

of endangered species. If you require further assistance or have any questions, please contact Kevin McAbee, at (801) 975-3330 extension 143.

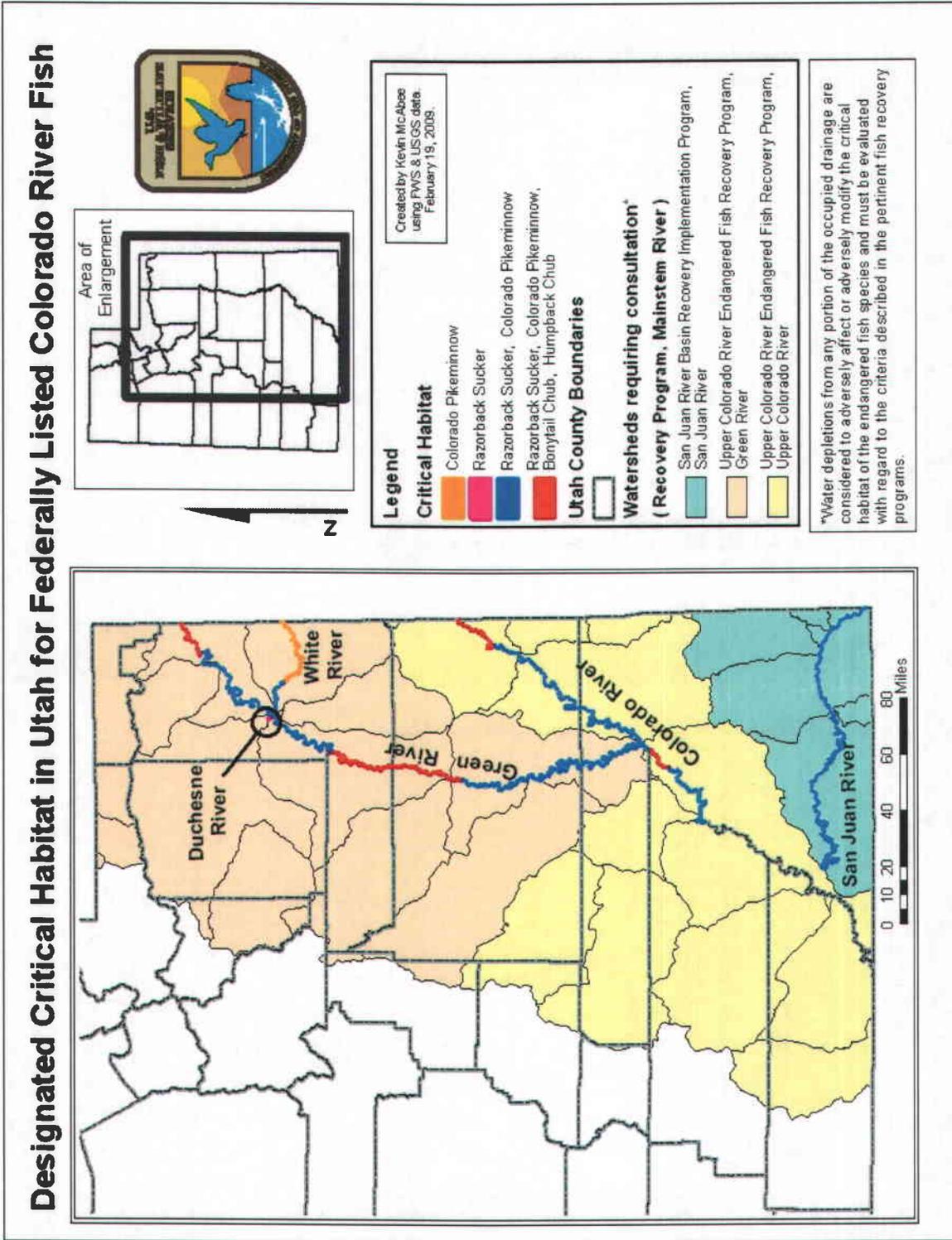
Sincerely,

A handwritten signature in black ink, appearing to read "Larry Crist". The signature is written in a cursive style with a long horizontal stroke extending to the right.

Larry Crist
Utah Field Supervisor

Appendix A

Designated Critical Habitat in Utah for Federally Listed Colorado River Fish



Start Point Refuse

IPaC Trust Resources Report

Generated April 06, 2016 09:34 AM MDT, IPaC v3.0.0

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.



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U.S. Fish & Wildlife Service

IPaC Trust Resources Report



NAME

Start Point Refuse

LOCATION

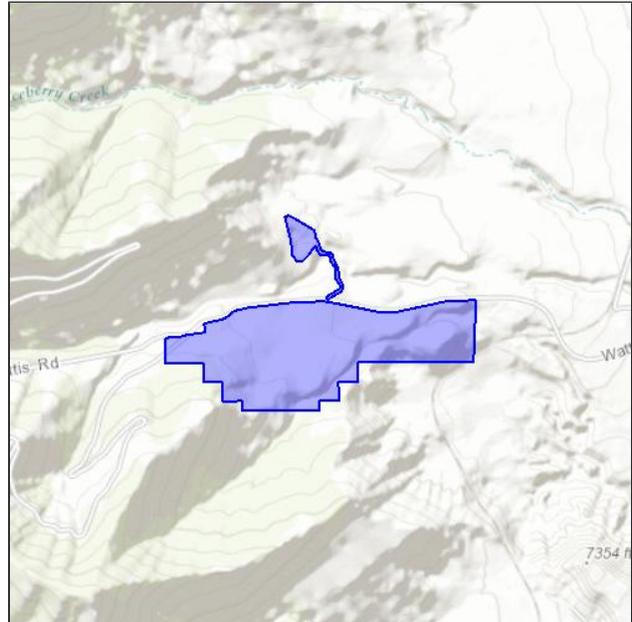
Carbon County, Utah

DESCRIPTION

Start Point Refuse, Mid-term evaluation of permit

IPAC LINK

<http://ecos.fws.gov/ipac/project/NSC2T-QYA65-CETAH-6VK7H-5BNXTA>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

Utah Ecological Services Field Office

2369 West Orton Circle, Suite 50

West Valley City, UT 84119-7603

(801) 975-3330

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

The list of species below are those that may occur or could potentially be affected by activities in this location:

Birds

Mexican Spotted Owl *Strix occidentalis lucida* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B074

Yellow-billed Cuckoo *Coccyzus americanus* Threatened

CRITICAL HABITAT

There is **proposed** critical habitat designated for this species.

https://ecos.fws.gov/tess_public/profile/speciesProfile.action?sPCODE=B06R

Fishes

Bonytail Chub <i>Gila elegans</i>	Endangered
CRITICAL HABITAT There is final critical habitat designated for this species. https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E020	
Colorado Pikeminnow (=squawfish) <i>Ptychocheilus lucius</i>	Endangered
CRITICAL HABITAT There is final critical habitat designated for this species. https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E006	
Humpback Chub <i>Gila cypha</i>	Endangered
CRITICAL HABITAT There is final critical habitat designated for this species. https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E000	
Razorback Sucker <i>Xyrauchen texanus</i>	Endangered
CRITICAL HABITAT There is final critical habitat designated for this species. https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=E054	

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>

The following species of migratory birds could potentially be affected by activities in this location:

Bald Eagle <i>Haliaeetus leucocephalus</i> Season: Wintering https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008	Bird of conservation concern
Black Rosy-finch <i>Leucosticte atrata</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0J4	Bird of conservation concern
Brewer's Sparrow <i>Spizella breweri</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HA	Bird of conservation concern
Burrowing Owl <i>Athene cunicularia</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0NC	Bird of conservation concern

Calliope Hummingbird <i>Stellula calliope</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0K3	Bird of conservation concern
Cassin's Finch <i>Carpodacus cassinii</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0J6	Bird of conservation concern
Ferruginous Hawk <i>Buteo regalis</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06X	Bird of conservation concern
Flammulated Owl <i>Otus flammeolus</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DK	Bird of conservation concern
Fox Sparrow <i>Passerella iliaca</i> Season: Breeding	Bird of conservation concern
Golden Eagle <i>Aquila chrysaetos</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0DV	Bird of conservation concern
Gray Vireo <i>Vireo vicinior</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G5	Bird of conservation concern
Greater Sage-grouse <i>Centrocercus urophasianus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06W	Bird of conservation concern
Juniper Titmouse <i>Baeolophus ridgwayi</i> Year-round	Bird of conservation concern
Lewis's Woodpecker <i>Melanerpes lewis</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HQ	Bird of conservation concern
Loggerhead Shrike <i>Lanius ludovicianus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FY	Bird of conservation concern
Long-billed Curlew <i>Numenius americanus</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B06S	Bird of conservation concern
Olive-sided Flycatcher <i>Contopus cooperi</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN	Bird of conservation concern

Peregrine Falcon <i>Falco peregrinus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU	Bird of conservation concern
Pinyon Jay <i>Gymnorhinus cyanocephalus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0I0	Bird of conservation concern
Prairie Falcon <i>Falco mexicanus</i> Year-round https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0ER	Bird of conservation concern
Sage Thrasher <i>Oreoscoptes montanus</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0ID	Bird of conservation concern
Short-eared Owl <i>Asio flammeus</i> Season: Wintering https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD	Bird of conservation concern
Swainson's Hawk <i>Buteo swainsoni</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B070	Bird of conservation concern
Virginia's Warbler <i>Vermivora virginiae</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0IL	Bird of conservation concern
Western Grebe <i>aechmophorus occidentalis</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0EA	Bird of conservation concern
Williamson's Sapsucker <i>Sphyrapicus thyroideus</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FX	Bird of conservation concern
Willow Flycatcher <i>Empidonax traillii</i> Season: Breeding https://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6	Bird of conservation concern

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands in this location



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Utah Ecological Services Field Office

2369 WEST ORTON CIRCLE, SUITE 50

WEST VALLEY CITY, UT 84119

PHONE: (801)975-3330 FAX: (801)975-3331

URL: www.fws.gov; www.fws.gov/utahfieldoffice/

Consultation Code: 06E23000-2016-SLI-0202

April 06, 2016

Event Code: 06E23000-2016-E-00439

Project Name: Start Point Refuse

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Start Point Refuse

Official Species List

Provided by:

Utah Ecological Services Field Office
2369 WEST ORTON CIRCLE, SUITE 50
WEST VALLEY CITY, UT 84119
(801) 975-3330
<http://www.fws.gov>
<http://www.fws.gov/utahfieldoffice/>

Consultation Code: 06E23000-2016-SLI-0202

Event Code: 06E23000-2016-E-00439

Project Type: MINING

Project Name: Start Point Refuse

Project Description: Start Point Refuse, Mid-term evaluation of permit

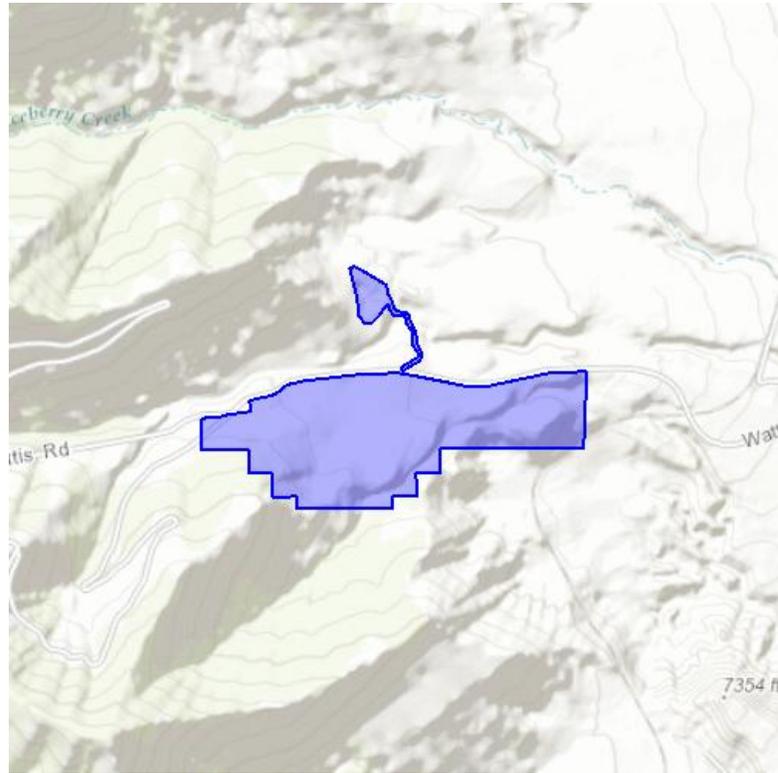
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Start Point Refuse

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Carbon, UT



United States Department of Interior
Fish and Wildlife Service

Project name: Start Point Refuse

Endangered Species Act Species List

There are a total of 6 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Mexican Spotted owl (<i>Strix occidentalis lucida</i>) Population: Entire	Threatened	Final designated	
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS	Threatened	Proposed	
Fishes			
Bonytail chub (<i>Gila elegans</i>) Population: Entire	Endangered	Final designated	
Colorado pikeminnow (<i>Ptychocheilus lucius</i>) Population: Entire, except EXPN	Endangered	Final designated	
Humpback chub (<i>Gila cypha</i>) Population: Entire	Endangered	Final designated	
Razorback sucker (<i>Xyrauchen texanus</i>) Population: Entire	Endangered	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: Start Point Refuse

Critical habitats that lie within your project area

There are no critical habitats within your project area.