

## ENVIRONMENTAL ASSESSMENT

### On an Application for an OPENCUT MINING PERMIT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted thereunder place operational guidance and limitations on a project during its lifetime, and provide for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act and the rules adopted thereunder. The DEQ approval of this application would not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

**APPLICANT:** Riverside Contracting, Inc.

**COUNTY:** Carbon

**SITE NAME:** Draper Borrow

**DATE:** July 2015

**LOCATION:** Section 16, T7 S, R20 E

**PROPOSAL:** The applicant proposes to permit a new, short-term pit to mine, screen, stockpile and transport 200,000 cubic yards of clay, sand, gravel and soil material from a 14.9-acre site located approximately 2 miles northwest of Red Lodge, and directly adjacent to Willow Creek road and MT Highway 78. The mine material would be used as fill for a highway reconstruction project straightening several sharp curves in Highway 78. At the request of the applicant, the DEQ conducted a public meeting on the permit application in Red Lodge on June 17, 2015.

A north-flowing irrigation ditch within the western margin of the proposed permit area transmits irrigation waste flow from the hayland/field located on the opposite side of the highway to the south. The water flows north across a dryland flat and then is used for further irrigation. Both sides of the ditch would be bounded by a 20-foot buffer and two temporary ditch crossings installed in accordance with 404 Permit design requirements would be removed after mining.

The excavation of mine material would create an approximately 7-acre recreational pond east of the irrigation ditch. If necessary, water would be pumped temporarily to allow removal of material down to a depth of up to 15 feet below grade. Dewatering would be conducted in accordance with a DEQ Construction Dewatering Permit obtained for the project.

A reclamation bond would be held by DEQ to ensure that final reclamation of the site to rangeland and a year round recreational pond would be completed by October 2018. This application contains all items required by the Opencut Mining Act and its implementing rules. Proponent commits to properly conducting Opencut operations and would be legally bound by the permit.

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<p><b>1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:</b></p>	<p>Topography: Site located on a relatively flat field one terrace level above the Rock Creek.</p> <p>Geology: Gravel terraces 20 to 40 ft (6-12 m) above present elevation of Rock Creek. Mostly cobbles and pebbles with minor amounts of sand and silt.</p> <p>The onsite soils consist of Charlos loam. The operator would replace 12 inches of soil and 18 inches of overburden.</p> <p>The site receives approximately 20-22 inches of precipitation per year.</p> <p><i>Impacts:</i> An irreversible and irretrievable removal of gravel from the site would occur. A small impact to the quantity and quality of soils from salvaging, stockpiling, and resoiling activities also would occur, but this would not impair the capacity of the soils to support full reclamation. There are no unusual topographic, geologic, soil, or special reclamation considerations that would prevent reclamation success.</p>
<p><b>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</b></p>	<p>Water obtained from an off-site source would be used for dust control.</p> <p>A north-flowing irrigation ditch within the western margin of the proposed permit area is owned by the Draper Ranch Co. and transmits irrigation waste flow from the hayland/field located on the opposite side of the highway to the south. The water flows north across a dryland flat and then is further used in the Draper Ranch Co.'s irrigation system for irrigation of another hay field. Both sides of the ditch would be bounded by a 20-foot buffer. Two temporary ditch crossings would be constructed in accordance with design requirements of the 404 Permit approved by the US Army Corps of Engineers. These crossings would be removed after mining and these locations reclaimed to preconstruction conditions.</p> <p>The excavation of mine material would create an approximately 7-acre pond east of the irrigation ditch. If groundwater is encountered during excavation, attempts would be made to isolate or phase material removal to avoid pumping. If necessary, water would be pumped temporarily to allow removal of material down to a depth of up to 15 feet below grade. Any such dewatering would be conducted in accordance with a DEQ Construction Dewatering Permit obtained for the project. The year-round pond would be constructed with three access ramps to allow access for recreational uses.</p> <p><i>Impacts:</i> The Opencut operations would create a year-round recreational pond, while leaving the existing irrigation ditch in its present condition. The proposed activities would have minimal effect on the quantity and quality of the surface and groundwater resources.</p> <p><i>Cumulative:</i> No cumulative impacts are anticipated.</p>
<p><b>3. AIR QUALITY</b></p>	<p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.</p> <p>No processing equipment, such as generators, crushers or asphalt plants, would be used during the proposed Opencut operation. Since the proposed operation is mining material for fill, fugitive dust that blows off the pit floor, roads,</p>

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	<p>stockpiles, etc. would be the primary potential concern for impacts to air quality. Fugitive dust is usually considered a nuisance but is not typically harmful to health.</p> <p>The applicant would apply water as necessary to control dust, and established a phone number (1-800-230-9848) that citizens can call if they observe dust at problem levels. The applicant also reports that citizens can provide complaints to flagging personnel working along the highway project, and these people would radio that information on so that water would be applied wherever needed for dust control. Citizens observing dust at problem level can also contact the DEQ Enforcement Division at 406-444-0379.</p> <p><i>Impacts:</i> Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts.</p>
<b>4. VEGETATION COVER, QUANTITY AND QUALITY</b>	<p>There are no known rare or sensitive plants or cover types present in the site area. Onsite vegetation consists of Prairie Smoke, Lupine, Prairie Windflower, common dandelion, Timothy, Balsamroot, and unidentifiable grasses; and provides approximately 80-90% cover. The vegetation would be removed as soil is stripped and the site would be replanted with plant species compatible with the proposed reclaimed use.</p> <p><i>Impacts:</i> No long term detrimental impacts to the vegetation would occur.</p>
<b>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</b>	<p>Although the area is used primarily for rangeland/pasture, it also supports populations of Antelope, Deer, Raptors, Rodents, Song Birds, Upland Birds and various other animal species. Population numbers for these species are not known.</p> <p><i>Impacts:</i> The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to similar habitat.</p>
<b>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</b>	<p>The Montana Natural Heritage Program (MNHP) lists the following 6 species of concern in the vicinity of the site:</p> <p><b>Great Blue Heron</b> (<i>Ardea herodias</i>) is the largest heron in North America, 60 cm tall and 97 to 135 cm long. Its upper parts are gray, and the fore-neck is streaked with white, black, and rust-brown. Great Blue Herons breed from southern Alaska southeast across central Canada to Nova Scotia and south to Guatemala, Belize, and the Galapagos Islands. Most Montana nesting colonies are in cottonwoods along major rivers and lakes; a smaller number occur in riparian ponderosa pines and on islands in prairie wetlands. Great Blue Herons eat mostly fish but also amphibians, invertebrates, reptiles, mammals, and birds. Disturbance by humans and loss of protected colony sites are major threats.</p> <p><b>Greater Sage-Grouse</b> (<i>Centrocercus urophasianus</i>) is the largest of Montana's grouse. Both sexes have relatively long, pointed tails, feathered legs, and mottled gray-brown, buff, and black plumage. In Montana, it ranges primarily in the southwestern and eastern portions of the state. This species does not migrate. Sagebrush is its preferred habitat.</p> <p><b>Yellowstone cutthroat trout</b> (<i>Oncorhynchus clarkii bouvieri</i>) is a subspecies of the cutthroat trout (<i>Oncorhynchus clarki</i>) and is a freshwater fish in the salmon family of order salmoniformes. They have a golden coloration and larger spots</p>

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	<p>more widely distributed on their sides than the westslope cutthroat trout. Yellowstone cutthroat trout inhabit relatively clear, cold streams, rivers, and lakes. As the name implies, these trout are native to the Yellowstone River drainage of southwest and south-central Montana. Much of their spawning habitat in tributaries of the upper Yellowstone River has been lost to irrigation withdrawals which dewater the streams before spawning and egg-incubation are completed in July and August.</p> <p><b>Grizzly Bear</b> (<i>Ursus arctos</i>) has a massive head with a prominent nose, rounded inconspicuous ears, small eyes, short tail a large, powerful body, and a noticeable hump above the shoulders. No true migration occurs, although Grizzly Bears often exhibit discrete elevational movements from spring to fall, following seasonal food availability. In Montana, Grizzly Bears primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slabrock habitats. Grizzly Bears are opportunistic and adaptable omnivores.</p> <p><b>Hoary Bat</b> (<i>Lasiurus cinereus</i>) is a large lasurine (20 to 35 g) with long pointed wings and heavily-furred interfemoral membrane. Hoary Bat is the largest bat species found in Montana. Its dorsal pelage is a mixture of browns and grays, tinged with white, giving the bat a frosted or hoary appearance. Hoary Bat is migratory and only a summer resident in Montana, and occupies forested areas. They are reported to favor moths but stomach contents of 7 individuals captured in Carter County revealed beetles, moths, true bugs, leafhoppers, lacewings and true flies. They are also carnivorous, and have been reported to attack, kill, and eat pipillistrel bats.</p> <p><b>Western Milk Snake</b> (<i>Lampropeltis gentilis</i>) is marked with whitish, black, and reddish or orange bands, with the reddish-orange bands bordered by the black; the snout is blackish and sometimes with whitish flecking. The bands often extend across the belly, but sometimes may be incomplete or absent, in which case the belly is whitish. Dorsal scales are smooth (unkeeled). The anal scale is not divided, as are most of the scales on the ventral surface of the tail. The neck is relatively short and thick. Total length of adults in the western Great Plains is usually 39 to 85 centimeters. Hatchlings are similar in appearance to adults, and 16 to 29 centimeters in total length. Eggs are slightly granular and range from 29 to 44 millimeters by 13 to 16 millimeters in length and breadth, depending on locality.</p> <p><i>Impacts:</i> None of the listed species have been found on this site. Even if suitable habitat did exist on this site, the disturbance area would be small and large areas of similar or identical habitat surrounds the site. The possible impact to these species would be minimal.</p>
<b>7. HISTORICAL AND ARCHAEOLOGICAL SITES</b>	<p>The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that no sites have been discovered previously within the designated search locale. A pedestrian survey of the area by DEQ personnel did not reveal any artifacts or signs of occupation. SHPO does not feel that a cultural resource inventory is warranted at this site at this time.</p> <p><i>Impacts:</i> If during operations resources were to be discovered, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined.</p>

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<b>8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY</b>	<p>There are no unusual demands on land, water, air or energy anticipated as a result of this project.</p> <p><i>Impacts:</i> Negligible impacts to land, water, air, or energy would occur.</p>

<b>IMPACTS ON THE HUMAN POPULATION</b>	
<b>RESOURCE</b>	<b>POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
<b>9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS</b>	<p>Carbon County zoning clearance has been obtained.</p> <p>Site is not zoned.</p>
<b>10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING</b>	<p>Based on aerial photography there are at least 4 residences within 1,000 feet of the proposed permit boundary, and one of these is less than 200 feet east of the proposed southeast permit corner.</p> <p><i>Impact:</i> This commercial pit is being sited in this area because of the location of the resource, and to service an MDT project.</p>
<b>11. AESTHETICS</b>	<p>The site is located in a common pastureland area. There would be a temporary alteration of aesthetics while mining is under way. However, reclamation would return the area to a visually acceptable landscape of rangeland surrounding a recreational pond. This project is considered to be short-term, i.e., planned to take 3 years to complete.</p> <p>Due to the proximity of residences, the Department would mitigate noise impacts by limiting the hours of operation to be Monday through Saturday, 7 am to 7 pm, rather than 6 am to 10 pm, 7 days/week as originally proposed. The Department would also require that a berm of overburden, soil, or other earth material at least 6 feet high above existing grade be constructed along the entire east and north sides of the permit boundary. Additionally, if Opencut operations would be conducted for any other purposes once the highway project is completed (such as retail sales, or to supply a concrete batch plant, etc.), an amendment application would be required to propose appropriately reduced hours of operation and/or activities.</p>
<b>12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT</b>	<p>Existing employees would mainly be utilized for this operation. There is low potential that this project would create a significant number of new jobs.</p> <p><i>Impacts:</i> New employment opportunities would be limited.</p>
<b>13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION</b>	<p>The acreage listed in the proposal would be taken out of pastureland use. Upon completion of mining, the land would be reclaimed to rangeland and a year round recreational pond.</p> <p><i>Impacts:</i> Pastureland production would be reduced as soil stripping and operations progress across the site. When the entire site is opened up for mining and mine-related activities, all pastureland activities would cease, but would be restored, in part, as the site is reclaimed to pasture and a recreational pond.</p>
<b>14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME</b>	<p>Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc., from the companies, employees, or landowners benefitting from this operation. Following reclamation, it is assumed the tax base would revert to pre-mine levels.</p>

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<b>15. DEMAND FOR GOVERNMENT SERVICES</b>	Limited oversight by DEQ Opencut Program personnel would be conducted in concert with other area activity when in the vicinity.
<b>16. HUMAN HEALTH AND SAFETY</b>	Any industrial activity would increase the opportunities for accidental injury. There are agencies that require the Operator to implement specific safety measures. If followed there is no reason to believe that significant safety issues would be present.
<b>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES</b>	This activity would not inhibit the use of the identified resources.
<b>18. NATIVE CULTURAL CONCERNS</b>	<i>Impacts:</i> None identified.

**19. Alternatives Considered:**

- A. Denial Alternative:** The Department would deny an application that does not comply with the Act and Rules. No impacts to the natural or human environment would occur.
- B. Approval Alternative:** The Department would approve an application that complies with the Act and Rules. Impacts of this application are addressed in the body of the EA.

**20. Public Involvement, Agencies, Groups or Individuals contacted:** Montana State Historic Preservation Office, Montana Natural Heritage Program, Carbon County commissioner, MDT, WPB, U.S. Army Corps of Engineers, local citizens and interest groups.

**21. Other Governmental Agencies which May Have Overlapping or Sole Jurisdiction include, but may not be limited to:** Carbon County Commission or County Planning Department (zoning), Carbon County Weed Control Board, MSHA and OSHA (worker safety), DEQ ARMB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT (road access).

**22. Regulatory Impact on Private Property:** The analysis done in response to the Private Property Assessment Act indicates no impact. The Department does not plan to deny the application or impose conditions that would restrict the use of private property so as to constitute a taking.

**23. Magnitude and Significance of Potential Impacts:** This proposal is not likely to create impacts of significance due to mitigation, restrictions, and oversight mandated by the Opencut Mining Act and pursuant rules and the Montana Clean Air Act.

**24. Recommendation for Further Environmental Analysis:** [ ] EIS [ X ] No Further Analysis

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Name Title

## PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

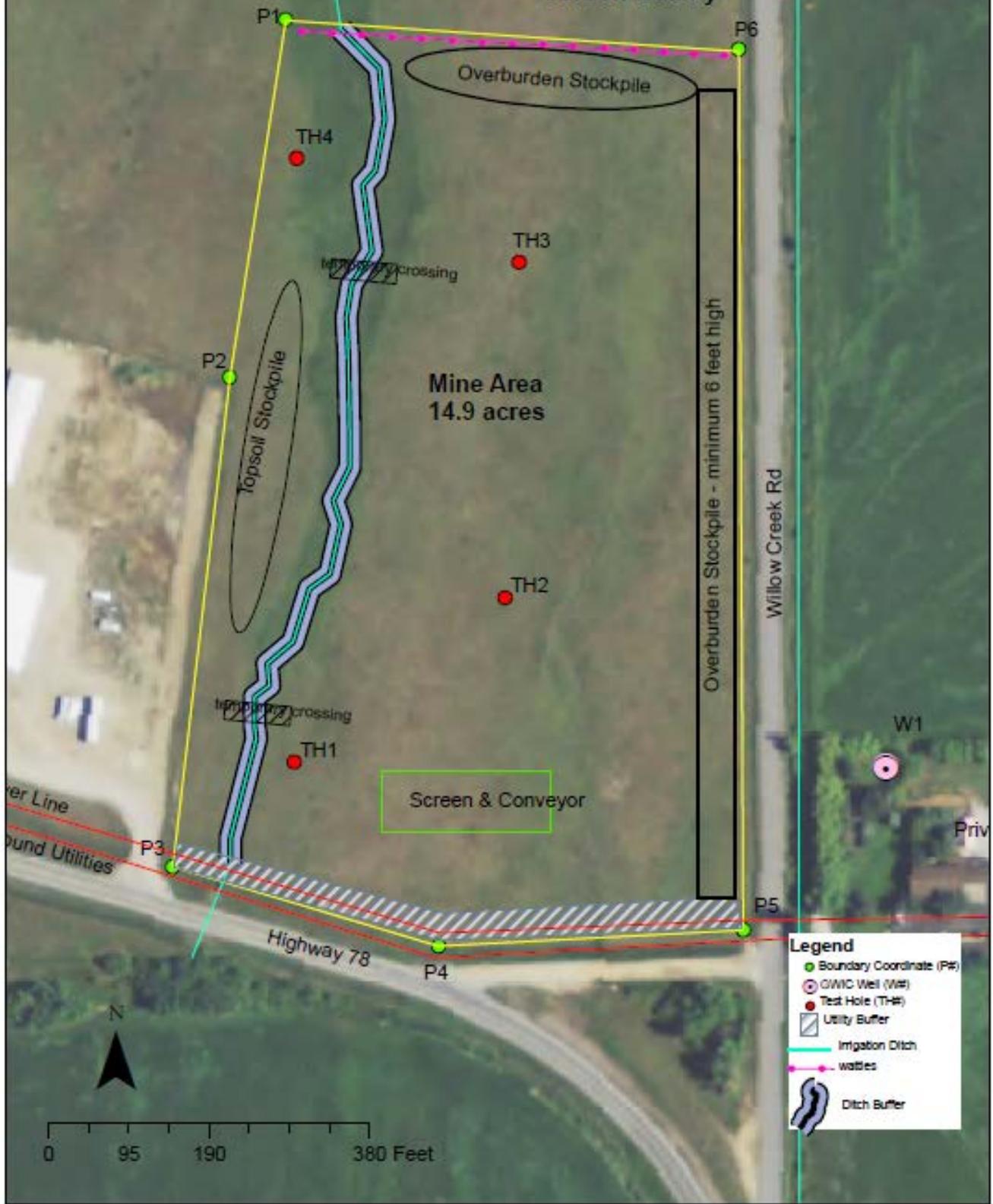
YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deprive the owner of all economically viable uses of the property?
	X	4. Does the action deny a fundamental attribute of ownership?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.)
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property?
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c)
		7a. Is the impact of government action direct, peculiar, and significant?
		7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
		7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

Riverside Contracting, Inc.  
 Draper Borrow  
 Site Map  
 July 2015

Landowner: Draper Ranch Co.  
 Sec. 16, T07S, R20E  
 Carbon County



RECEIVED VIA ELECTRONIC FTS 07/15/2015

Reclamation Map - Pond Cross Sections  
April 2015

