

ENVIRONMENTAL ASSESSMENT

On an Application for an

OPENCUT MINING STANDARD PERMIT

The Montana Department of Environmental Quality (DEQ) prepared this environmental assessment (EA) to comply with the Montana Environmental Policy Act (MEPA). The purpose of an EA is 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 Opencut, or DEQ, more broadly, has no regulatory authority.

The state law that regulates opencut mining operations in Montana is the Opencut Mining Act (“the Act”). This law, together with its implementing administrative rules, govern an opencut mine’s operations and require reclamation of the affected land.

Local governments and other state agencies may have authority over different resources and activities under separate regulations. An Opencut mining application will only be approved if the proposed operation complies with the Act and the rules. If DEQ issues a permit for opencut mining, the opencut mine operator has a separate obligation to comply with any federal, state, or local laws and to obtain any other permits, licenses, or approvals required for any part of the proposed operation.

This EA was prepared from the viewpoint of a reclaimed site.

ENVIRONMENTAL ASSESSMENT	
OPERATOR NAME: A. M. Welles, Inc.	
SITE NAME: DSL Site	
OPENCUT NUMBER: 674	
LOCATION: 45.397446, -111.727826	COUNTY: Madison
PROPERTY OWNERSHIP: <input type="checkbox"/> FEDERAL <input checked="" type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> PRIVATE	
EA PREPARER: Bryan Allison	EA DATE: May 2022

COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT

Before DEQ Opencut Section (“Opencut”) can issue an opencut mining permit, it completes an environmental review to identify and consider potential impacts of the proposed permitting action on the human and physical environment. MEPA requires different levels of environmental review, depending on the proposed project, significance of potential impacts, and the review timeline. § 75-1-201, Montana Code Annotated (“MCA”), and Administrative Rule of Montana (“ARM”) 17.4.607. Because the short response times required by the Act do not allow sufficient time to prepare a more detailed impact statement, Opencut prepares an EA for proposed opencut projects. § 82-4-432, MCA, ARM 17.4.607(3)(c).

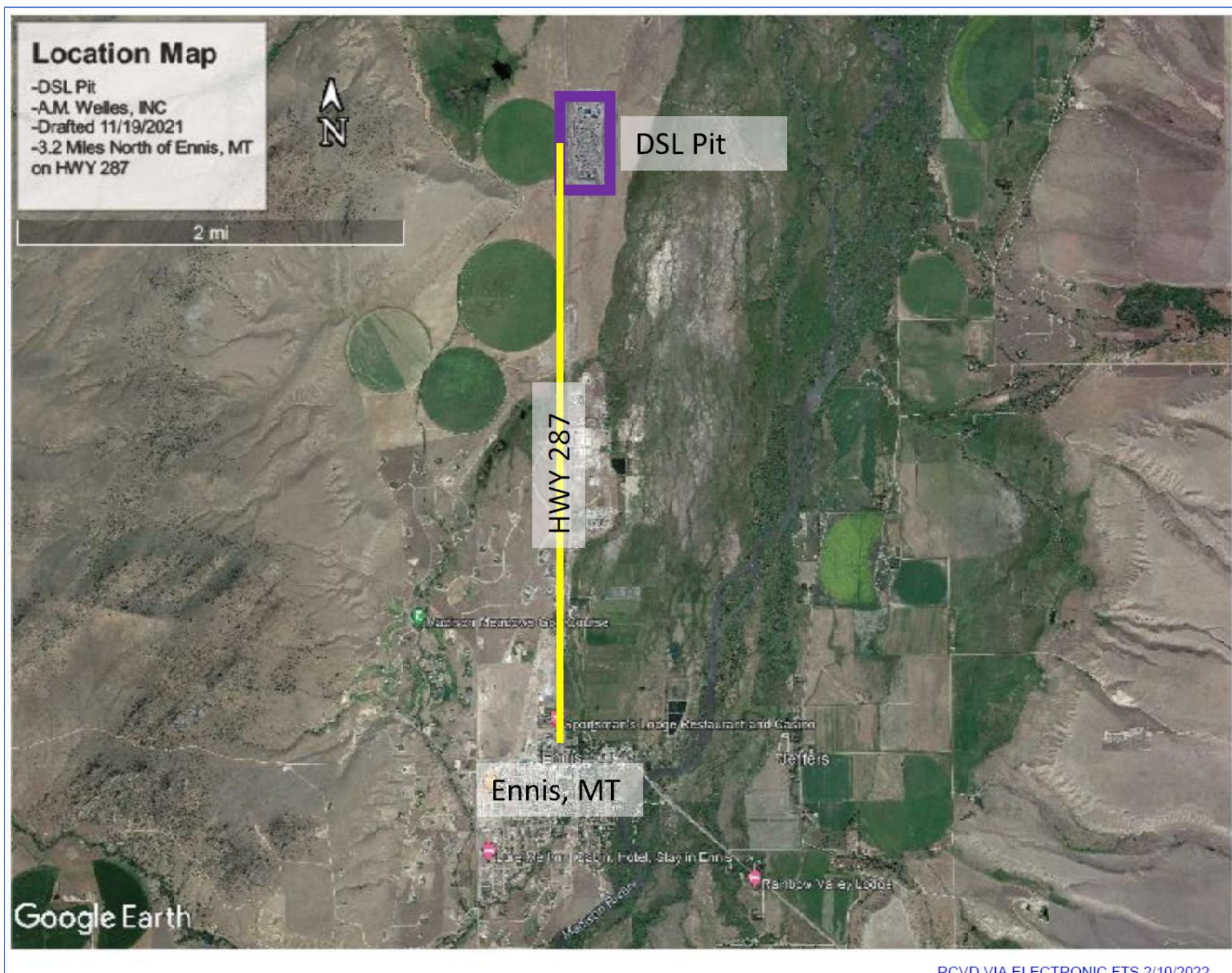
MEPA is procedural; its intent here is to ensure that opencut mining impacts to the environment are fully considered and the public is informed of potential impacts resulting from the state agency action of issuing an opencut permit.

COMPLIANCE WITH LAWS GOVERNING OPENCUT OPERATIONS IN MONTANA: The Opencut Mining Act and Associated Administrative Rules

Opencut administers and enforces the Opencut laws through issuing two types of permits, as well as amendments. “Standard Permit” applicants must submit a proposed plan of operation, reclamation plan, and bond. “Rural Permit” applicants must submit an application and bond. If Opencut determines that an application is acceptable, it issues a site-specific permit for an operator to conduct opencut operations. The operator remains responsible for identifying and complying with all other applicable laws, including obtaining any other necessary permits or approvals.

Summary of Proposed Action	
General Overview	<p>The applicant proposes to amend an existing permit into a Standard, long-term opencut operation to continue to mine, screen, crush, wash, stockpile, and transport 300,000 cubic yards of sand and gravel from a 63.2-acre site located 3 miles north of Ennis, MT.</p> <p>The site has been a long-standing permitted gravel source.</p> <p>The site was not inspected by an Opencut scientist, but aerial data gathered by DNRC using an Unmanned Aircraft System (UAS) was provided. Therefore, all information included in the EA is derived from the permit application, analysis of aerial photography, topographic maps, and other research tools.</p>
Proposed Action Disturbance	
Total Permitted Acreage	63.2
Proposed Action	
Duration	<p>Start Date: Start date is defined as the date on which DEQ issues the Opencut Permit. §§ 82-4-432(10)(c), (14)(d), MCA.</p> <p>Final Reclamation Date: December 2042</p> <p>Final reclamation date is defined as the date that the applicant identifies on the application or application for an amendment.</p> <p>Upon final reclamation, the site will be reclaimed to a productive post-mine land use. Long-term impacts from mining are anticipated to be minimal, if any.</p>
Operations Equipment	<p>Typical opencut excavating/hauling equipment includes a backhoe, bulldozer, dump/haul truck, excavator, loader, scraper, and skidsteer. Proposed opencut processing equipment includes an asphalt plant, crusher, pug mill, screen, conveyor, and wash plant. Processing equipment may be stationary or mobile (moves with the highwall as mining progresses across the site).</p>
Location and Analysis Area	<p>Location: 45.397446, -111.727826</p> <p>Distance from nearest town/city: Three miles north of Ennis, MT.</p> <p>Analysis Area: The area being analyzed as part of this environmental review includes the immediate project area as well as neighboring lands surrounding the analysis area, as appropriate for the impacts being considered. Refer to Location</p>

	Map below.
Structures within the permitted area	Opencut operation and facilities.
Facilities and Surface Disturbances	Opencut operation and facilities.
Proposed Mitigations, if any	No mitigations are described within the permit.
Operation Requirements	The opencut operation must comply with the Act and Rules governing permitted opencut operations.



PURPOSE AND BENEFIT FOR PROPOSED ACTION

DEQ's purpose in conducting this environmental review is to act upon A. M. Welles, Inc. 's application for an opencut operating permit.

The applicant states that the benefits of the proposed action are to extract opencut materials for commercial purposes.

REGULATORY RESPONSIBILITIES

ARM 17.4.609(3)(c) requires DEQ to list any federal, state, or local agencies that have overlapping or additional jurisdiction, or environmental review responsibility for the proposed action, as well as permits, licenses, and other required authorizations. These include but are not limited to: the Environmental Protection Agency (Clean Water Act), U.S. Dept. of Labor, Montana Department of Labor, DEQ (Montana Clean Air Act, Montana Water Quality Act), Montana Department of Natural Resources (Montana Water Use Act for water rights, if implicated), the Montana Department of Transportation, and/or Madison County.

The applicant is responsible for complying with all applicable laws, including obtaining all other required permits. The above list is representative, not exhaustive.

ALTERNATIVES CONSIDERED

In addition to the proposed action, DEQ analyzes a "no-action" alternative in this EA. If chosen, the "no-action" alternative would result in a denial of the opencut permit and none of the identified potential impacts would occur. The "no-action" alternative forms the baseline from which the potential impacts of the proposed action can be measured.

SUMMARY OF POTENTIAL IMPACTS TO THE PHYSICAL AND HUMAN ENVIRONMENT

The impacts analysis identifies and evaluates **direct, secondary, and cumulative impacts**.

- **Direct impacts:** impacts that occur at the same time and place as the action that causes the impact.
- **Secondary impacts:** further impacts to the human environment that may be stimulated, or induced by, or otherwise result from a direct

impact of the action. ARM 17.4.603(18).

- **Cumulative impacts:** collective impacts on the human environment of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through preimpact statement studies, separate impact study evaluation, or permit processing procedures. ARM 17.4.603(7).

Where impacts are expected to occur, the impacts analysis estimates the **duration** and **severity** of the impact.

The duration of an impact is quantified as follows:

- **Short-term:** impacts that would not last longer than the proposed operation of the site, including reclamation of the site.
- **Long-term:** impacts that would remain or occur following reclamation of the proposed site.

The severity of an impact is measured using the following:

- **No impact:** There would be no change from current conditions.
- **Negligible:** An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** The effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** The effect would alter the resource.

The table below summarizes DEQ’s analysis of the affected environment and potential impacts. A narrative explaining DEQ’s analysis follows each section. Unless otherwise indicated, the duration of each impact analyzed is the same duration as the permit, from start date through final reclamation.

IMPACTS ON THE PHYSICAL ENVIRONMENT (ARM 17.4.609(3)(d))		
Topography, Geology and Soils		
	Yes	No
<i>Are soils present that cannot be salvaged?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Are there unusual or unstable geologic features?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Are there special reclamation considerations?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
No Action Alternative: No further impacts would occur because no action is taken.		
Proposed Action: The site is situated on a level alluvial terrace. The terrace has a history of being utilized for opencut material extraction and the onsite topography reflects opencut activity more than it does a natural state (i.e. it is incised, contains highwalls and stockpiles, etc.) The terrace is the lowest terrace in a series of terraces above the Madison River. The onsite soils mapped by the Natural Resources Conservation Service (NRCS) consist primarily of Scravo-Thess complex, cool, 0 to 4 percent slopes. This area receives around 10 to 14 inches of precipitation per year and is located at approximately 4,930 feet above mean sea level. As part of reclamation, the Operator would replace 8 inches of soil and 0 inches of overburden.		
Direct Impacts: An irreversible and irretrievable removal of opencut materials 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 or fragile topographic, geologic, soil, or special reclamation considerations that would prevent reclamation success, nor are there any such features of statewide or societal importance present.		
The information provided above is based on the information that DEQ had available to it at the time of completing this EA. Available information may include the permit application, analysis of aerial photography, topographic maps, geologic maps, soil maps, and other research tools. Based on this information, DEQ does not anticipate an impact to geology and soil quality, stability and moisture. No unusual or unstable geologic features are present, and no fragile or particularly erosive or unstable soils are present.		
Impacts to topography would be minor and long-term.		
Secondary Impacts: No secondary impacts to topography, geology, soil quality, stability, and moisture would be expected.		
Cumulative Impacts: Cumulative impacts would be minor.		
Duration: Impacts are anticipated to last the life of the permit.		
Water Quality, Quantity, and Distribution		
	Yes	No
<i>Are important surface or groundwater resources present?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No Action Alternative: No further impacts would occur because no action is taken.		
Proposed Action:		

The site is situated on a terrace approximately 60 vertical feet above the Madison River floodplain. Water would continue to be used onsite for dust control, pug milling, asphalt production, and wash plant operations. Wash plant water is stored in a lined pond.

Water would continue to be obtained from an onsite well. Overall the site is situated in a dry location above groundwater and surface water features.

The site would contain and infiltrate precipitation until final reclamation when the land surface would be resoiled, revegetated, and reconnected to the landscape through elimination of containment/mined-in berms.

Direct Impacts: The information provided above is based on the information that DEQ had available to it at the time of completing this EA. Available information may include the permit application, analysis of aerial photography, topographic maps, and other research tools. Based on this information, DEQ does not anticipate an impact to surface water features and water quality, quantity and distribution management.

Surface water that may leave the site during a heavy storm event could carry sediment. The nearest surface water is a ditch located approximately 960 feet from the project area to the southeast.

Precipitation and surface water would generally be expected to infiltrate into the subsurface; however, any surface water that may leave the site could carry sediment from the disturbed site. Any impacts to the surface water would be short-term and would be negligible as a result of the proposed work based on commitments made by the operator in the application.

Secondary Impacts: No secondary impacts to water quality, quantity and distribution would be expected.

Since the Opencut laws do not regulate water quality or quantity, Opencut has no direct information. However, Operators are separately required to comply with all laws relating to water, such as the federal Clean Water Act and the Montana Clean Water Act, and to obtain all required permits, such as an MPDES permit. Therefore, it is anticipated that the proposed opencut operation would have a negligible impact on water quality and water quantity.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Air Quality

	Yes	No
<i>Will pollutants or particulate be produced?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action: Since the Opencut laws do not regulate air quality, Opencut has no direct information. However, Operators are separately required to comply with all laws relating to air, such as the federal Clean Air Act and the Montana Clean Air Act, and to obtain all required air quality permits, such as a permit from DEQ Air Resources Management Bureau. Therefore, it is anticipated that the proposed opencut operation would have a negligible impact on air quality.

Air quality permits would typically be required for processing equipment before installation. Machinery, such as generators, crushers, and asphalt plants are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied.

“Fugitive dust” blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance, but not harmful to human health.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Vegetation Cover, Quantity and Quality

	Yes	No
<i>Will vegetative communities be impacted?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Are any rare plants or cover types known to be present?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action: There are no known rare or sensitive plants or cover types present within the proposed permit boundary. No known fragile or unique resources or values, or resources of statewide or societal importance, are present within the proposed permit boundary.

Onsite vegetation likely consists of rangeland species and provides approximately 80-90% cover in undisturbed areas as estimated from aerial photography.

The vegetation would be removed as soil is stripped and the site would be replanted with plant species compatible with the proposed reclaimed use.

Direct Impacts: The information provided above is based on the information that DEQ had available to it at the time of completing this EA. Available information may include the permit application, analysis of aerial photography, topographic maps, geologic maps, soil maps, and other research tools. Based on this information, DEQ does not anticipate an impact to vegetation cover, quantity, and quality.

Secondary Impacts: Land disturbance at the site may result in propagation of noxious weeds. Any surface disturbances would be reclaimed and seeded with an appropriate seed mix. If the Permit were approved, weed control during and after mining would be a requirement.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Terrestrial, Avian, Aquatic Life and Habitats

	Yes	No
<i>Is the area used by wildlife, birds, or fish?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action: Although the area is used primarily for opencut operations, based on available information, and as inferred from aerial analysis, it also likely supports populations of deer, antelope, rodents, songbirds, coyotes, foxes, raptors, insects, and various other animal species. Population numbers for these species are not known.

Direct Impacts: 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. Any displaced animals could find other suitable habitat nearby and return to the project area shortly after the project conclusion. Although some wildlife and wildlife habitat may be impacted until the project disturbance is reclaimed, ample non-developed land exists around the proposed site for the temporarily displaced animals. Impacts to biota and habitats, which are resources of significant statewide and societal importance, would be temporary and negligible.

Secondary Impacts: No secondary impacts to terrestrial, avian and aquatic life and habitats stimulated or induced by the direct impacts analyzed above would be expected.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit and may extend beyond the life of the permit.

Sage Grouse:

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action: The project would not be in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: <http://sagegrouse.mt.gov>. Impacts to sage grouse, including cumulative impacts, would not be significant.

Direct Impacts: Because of involvement with and oversight from the Sage Grouse Program, any impacts to sage grouse or their habitat have already been mitigated and would therefore be negligible.

Secondary Impacts: No secondary impacts to sage grouse or sage grouse habitat would be expected.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit and may extend beyond the life of the permit.

Unique, Endangered, Fragile or Limited Environmental Resources

	Yes	No
<i>Are any federally listed threatened or endangered species or identified habitat present?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Are there mapped wetlands present?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Are there any species of special concern?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Are there sage grouse core, general, or connectivity habitats present?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action:

The site is situated approximately 60 vertical feet above the Madison River floodplain and the wetlands associated with it, the existing opencut operation is contained by incised topography, and therefore the wetlands in the vicinity would be unaffected.

The Montana Natural Heritage Program (MNHP) lists the following nine species of concern in the vicinity of the site:

Arctic Grayling (*Thymallus arcticus*)- The Arctic grayling is a species native to northern North America. The fluvial or river-dwelling population in the upper Big Hole River are the last remnants of this native Fish of Special Concern. Today in Montana, Arctic grayling are found primarily in small, cold, clear lakes with tributaries suitable for spawning. They do not coexist well with other fishes except cutthroat trout and others with which they evolved. Although fluvial Arctic grayling inhabit the entire Big Hole River, highest densities occur in the vicinity of Wisdom.

Alkali-marsh Ragwort (*Senecio hydrophilus*) is present in alkaline habitats within a portion of southwest Montana. Plants are not that common, and occur in low-elevation wetlands that can be victim to dewatering. Plants are perennial or possibly biennial, with the sea-green herbage conspicuously glaucous. Leaves are thick and somewhat succulent. Inflorescence is a compound, flat-topped cyme.

Great Blue Heron (*Ardea herodias*) 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

Hérons 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.

Trumpeter Swan (*Cygnus buccinator*) are the largest waterfowl in North America. The adult Trumpeter Swan is entirely white, with black feet, legs, and bill. Trumpeter Swans breeding in Montana are non-migrants. They spend both the breeding season and the winter in southern Montana's lakes, ponds, and streams of the Red Rock Lakes National Wildlife Refuge. Dominant foods consist of submerged aquatic plant species.

Long-billed curlew (*Numenius americanus*) is a large North American shorebird. Adults have a very long bill (4.4–8.6 in) curved downwards, a long neck and small head. It is the largest nesting sandpiper in North America. Migration northward from wintering grounds is in March-April. Its summer breeding range includes all of Montana. Nests on the ground in dry prairies and moist meadows, usually in flat area with short grass. Fairly opportunistic feeding on various insects (grasshoppers, beetles, caterpillars, etc.) and some berries. During migration also feeds on crayfishes, crabs, snails, and toads.

Spiny Skeletonweed (*Pleiacanthus spinosus*) Taprooted perennial with a brown-wooly branched crown. Stems erect, spine-tipped, 15–40 cm, branched. Herbage glabrate to weakly tomentose with milky sap. Leaves alternate, cauline, linear, entire, 5–30 mm long, inconspicuous. Inflorescence heads solitary on upper spine-like branches. Flowering occurs in July - August.

Ferruginous hawk (*Buteo regalis*) is a large bird of prey. Most of Montana is summer range for this raptor. Fall migration begins in August and continues into early September. Young birds will migrate south earlier than, and independent of adults. The habitat of this hawk is described as mixed-grass prairie, shrub-grasslands, grasslands, grass-sagebrush complex, and sagebrush steppe.

Clark's Nutcracker (*Nucifraga columbiana*) Clark's Nutcracker is a jay-sized corvid that is crowlike in build and flight, with moderate sexual size dimorphism. Total length of adults 27.0 to 30.1 cm. Mass 106 to 161 g. Males slightly larger than females. Sexes similar in appearance. Light to medium gray, with varying amounts of white around eyes, on forehead, and on chin; white around vent and at base of tail; wings and tail glossy black; secondaries broadly tipped with white forming a white patch; outer rectrices white. Folded wings nearly reach tip of tail. Long, pointed, black bill with short nasal bristles. Distinctive grating call audible at great distance (Tomback 1998).

Grizzly Bears (*Ursus arctos*) have a massive head with a prominent nose, rounded inconspicuous ears, small eyes, short tail and a large, powerful body. The facial profile is concave and there is a noticeable hump above the shoulders. The claws on the front feet of adults are about 4 inches long and slightly curved. They vary in color, though the most prevalent coloration in Montana is medium to dark brown underfur, with light to medium grizzling on the head and back. Adult males can weigh around 200 kilograms, and adult females can weigh 130 kilograms. Grizzly bears often exhibit discrete elevational movements from spring to fall. They primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slabrock habitats. Historically, the Grizzly Bear was primarily a plains species occurring in higher densities throughout most of eastern Montana.

The MNHP also identified that the following important Animal Habitat:

Bat Roost (Non-cave) – Confirmed area of occupancy based on the documented presence of adults or juveniles of any bat species at non-cave natural roost sites (e.g. rock outcrops, trees), below ground human created roost sites (e.g. mines), and above ground human created roost sites (e.g. bridges, buildings).

Impacts: The project area is located in a rural, non-wilderness area. While potential habitat for threatened and endangered species may exist, the surrounding area is comprised of large undeveloped spaces. DEQ does not have information as to whether observations of the listed species have been reported at 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 surround the site. The possible impact (including cumulative impacts) to these species would be short-term and negligible.

Secondary Impacts: No secondary impacts to unique, endangered, fragile, or limited environmental resources that could be stimulated or induced by the direct impacts analyzed above would be expected.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Historical and Archaeological Sites

	Yes	No
Are any historical, archaeological, or paleontological resources present within the designated search locale?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action:

The Montana State Historic Preservation Office (SHPO) was notified of the application. It reported that one site had been discovered previously within SHPO's designated search locale. The DNRC archeologist evaluated the site and the remainder of the project area. SHPO concurs with the DNRC archeologist that the proposed project would result in No Effect to Heritage Properties on State School Trust Lands.

Direct Impacts: If resources were discovered during operations resources, it would be Operator's responsibility to determine next steps as required by law. No impacts to historical and archeological sites would be expected.

Secondary Impacts: No secondary impacts to historical and archaeological sites are anticipated.

It is unknown whether historical, archaeological, or paleontological resources would be impacted. The operator is required to submit proof of consultation with the State Historic Preservation Office as part of the permitting process and to give archaeological and historical resources legally required protection. Therefore, the anticipated impacts are negligible.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Aesthetics

	Yes	No
<i>Is the project on a prominent topographic feature?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Will it be visible from populated or scenic areas?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action:

The site is located in a rangeland area already utilized for opencut operations. The proposed mining would occur on state land. The project area is expected to be visible from public spaces or roadways that border the state land, but a berm has long since been constructed between Highway 287 and the pit. There are no nearby residences as inferred from aerial photography.

Direct Impacts: There would be a temporary alteration of aesthetics while mining is under way. However, reclamation would return the area to a visually acceptable landscape. This project is considered to be long-term, i.e., planned to take 20 years to complete. Impacts to aesthetics would be temporary and moderate.

Secondary Impacts: No secondary impacts to aesthetics are anticipated.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Demands on Environmental Resources of Land, Water, Air or Energy

	Yes	No
<i>Will the project put demands on environmental resources such as land, water, air, or energy?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action:

The opencut operation will mine natural deposits from the site. No unusual demands on land, water, air, or energy are anticipated from the opencut operation. Upon reclamation, the impacts would be negligible.

The site is located on an alluvial terrace within a location with a history of being used for as a source for opencut materials.

Direct Impacts: Based on the analysis of available data and on the certifications made by the operator, DEQ does not foresee any unusual demands on land, water, air or energy from this opencut operation. Therefore, no direct impacts are anticipated.

Secondary Impacts: Increased acreage in the immediate area will be utilized for Opencut operations.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

Impacts on other Environmental Resources

	Yes	No
<i>Are there other environmental resources nearby which could be affected by the project?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

No Action Alternative: No further impacts would occur because no action is taken.

Proposed Action:

The site is immediately surrounded by rangeland and is situated 60 vertical feet above the Madison River floodplain.

Direct Impacts: Based on the analysis of available data and on the certifications made by the operator, DEQ does not foresee any impacts on other environmental resources from this opencut operation. Therefore, no direct impacts are anticipated.

Secondary Impacts: No secondary impacts to other environmental resources are anticipated as a result of the proposed project.

Cumulative Impacts: Cumulative impacts would be minor.

Duration: Impacts are anticipated to last the life of the permit.

IMPACTS ON THE HUMAN POPULATION (ARM 17.4.609(3)(e))

Health and Safety

	Yes	No
<i>Will the project add to health and safety risks in the area?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: As seen on the aerial photo of the surrounding area, there are no nearby residences. <i>Impact:</i> This commercial pit is being sited in this area because of the location of the resource, the history of mining at the site, and to provide materials for local projects.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		

Industrial, Commercial, and Agricultural Activities and Production

	Yes	No
<i>Would the project add to or alter these activities within the permit boundary?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<i>Would grazing lands, irrigation water, or crop production be affected within the permit boundary?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: The acreage listed in the proposal not already in opencut use would be taken out of rangeland use. Upon completion of mining, the land would be reclaimed to cropland, rangeland, and/or pasture.</p> <p>Direct Impacts: Rangeland production would be reduced as soil stripping and operations continue progress across the site. When the entire site is permitted and established for mining and mine-related activities, all rangeland activities would cease, but would be restored when the site is reclaimed. Impacts on the industrial, commercial, and agricultural activities and production in the area would be minor and short-term.</p> <p>Secondary Impacts: No secondary impacts to industrial, commercial, water conveyance structures, and agricultural activities and production are anticipated as a result of the proposed project.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		

Quantity and Distribution of Employment

	Yes	No
<i>Would the project create, move, or eliminate jobs? If so, estimate numbers in comments below.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: 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>Direct Impacts: New employment opportunities would be limited. No lasting positive or negative impacts to employment would be expected from this project.</p> <p>Secondary Impacts: No secondary impacts to quantity and distribution of employment are anticipated as a result of the proposed work.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		

Local and State Tax Base and Tax Revenues

	Yes	No
<i>Would the project create or eliminate tax revenue?</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Direct Impacts: 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> <p>Secondary Impacts: No secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed project.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		

Demand on Government Services		
	Yes	No
Will substantial traffic be added to existing roads?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will other services (fire protection, police, schools, etc.) be needed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Direct Impacts: Occasional increases in construction-related traffic may occur. Local roads may be improved. Impacts would be short-term and minor. Traffic load would depend on site activity and is unknown at this time.</p> <p>Secondary Impacts: No secondary impacts to government services are anticipated as a result of the proposed open-cut operation.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		
Locally Adopted Environmental Plans and Goals		
	Yes	No
Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Direct Impacts: Madison County zoning clearance has been obtained. The site is not zoned.</p> <p>Secondary Impacts: No secondary impacts to the locally-adopted environmental plans and goals are anticipated as a result of the proposed work.</p> <p>The open-cut operation is required to comply with zoning plans. It is unknown whether any management plans relate to the proposed open-cut site. However, since the operator is required to comply with all laws and to obtain all required permits, the anticipated impacts to any zoning plan or management plan are negligible, if any.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		
Access to and Quality of Recreational and Wilderness Activities		
	Yes	No
Are wilderness or recreational areas nearby or accessed through the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there recreational potential within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Direct Impacts: Based on the information provided by the Operator and review of an aerial photo of the surrounding area, DEQ does not anticipate that any wilderness or recreational areas will be impacted by the proposed operation. Access to wilderness or recreation areas is not an issue at this site.</p> <p>Secondary Impacts: No secondary impacts to wilderness or recreational areas are anticipated.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		
Density and Distribution of Population and Housing		
	Yes	No
Will the project add to the population and require additional housing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Based on the analysis of available data and on the certifications made by the Operator, and as seen on the aerial photo of the surrounding area, there are no nearby residences. Proposed action may discourage building in the immediate surrounding area.</p> <p>Direct Impacts: This commercial pit is being sited in this area because of the location of the resource, and to provide materials for local projects. The project would not add to the population or require additional housing, therefore, no impacts to density and distribution of population and housing are anticipated.</p> <p>Secondary Impacts: No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed open-cut operation.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		
Social Structures and Mores		

	Yes	No
<i>Is some disruption of native or traditional lifestyles or communities possible?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Based on the information provided by Operator, DEQ is not aware of any native cultural concerns that would be affected by the proposed activity.</p> <p>Direct Impacts: The proposed opencut activities would occur entirely on private land. Due to the low population density nearby, no disruption of native or traditional lifestyles would be expected, therefore, no impacts to social structure and mores are anticipated.</p> <p>Secondary Impacts: No secondary impacts to social structures and mores are anticipated as a result of the proposed opencut operations.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		

Cultural Uniqueness and Diversity

	Yes	No
<i>Will the project cause a shift in some unique quality of the area?</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>No Action Alternative: No further impacts would occur because no action is taken.</p> <p>Proposed Action: Based on the information provided by Operator, DEQ is not aware of any unique qualities of the area that would be affected by the proposed activity.</p> <p>Direct Impacts: No impacts to cultural uniqueness and diversity are anticipated from this project.</p> <p>Secondary Impacts: No secondary impacts to cultural uniqueness and diversity are anticipated as a result of the proposed work.</p> <p>Cumulative Impacts: Cumulative impacts would be minor.</p> <p>Duration: Impacts are anticipated to last the life of the permit.</p>		

Private Property Impacts

	Yes	No
<i>Is DEQ regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property Management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Does DEQ have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>If so, DEQ must determine if there are alternatives that would reduce, minimize, or eliminate the restriction on the use of private property, and analyze such alternatives. Have alternatives been considered and/or analyzed? If so, describe below.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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 regulations affecting private property or water rights?
	X	2.	Does the action result in either a permanent or an 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 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.)
		4a.	Is there a reasonable, specific connection between the government requirement and legitimate state interest?
		4b.	Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	5.	Does the action deny a fundamental attribute of ownership?
	X	6.	Does the action have a severe impact of 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 the sustained by the public general? (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 question 5a or 5b.

If taking or damaging implications exist, the agency must comply with MCA § 2-10-105 of the PPAA, 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.

Alternatives:

The proposed project would take place on state-owned land. The analysis under the Private Property Assessment Act, §§ 2-10-101 through -112, MCA, indicates no impact. DEQ does not plan to deny the application or impose conditions that would restrict the regulated person's use of private property so as to constitute a taking.

PUBLIC INVOLVEMENT

The operator was required to conduct public notice per MCA requirements. The site did not meet the criteria for a public meeting and a public meeting was not held.

Internal and external scoping efforts also included queries to the following websites/ databases/ personnel:

- Montana State Historic Preservation Office
- Montana Department of Natural Resource and Conservation (DNRC)
- Montana Department of Environmental Quality (DEQ)
- Montana Department of Transportation
- Madison County
- USGS National Hydrography Data
- Montana Natural Heritage Program
- Montana Cadastral Mapping Program
- Montana Groundwater Information Center
- Montana Bureau of Mines and Geology (GWIC)
- United States Department of Interior, Bureau of Land Management (BLM)
- United States Forest Service (USFS)
- United States Environmental Protection Agency
- National Wetland Inventory
- FEMA Floodplain

DETERMINING THE SIGNIFICANCE OF IMPACTS

If the EA analysis identifies impacts associated with the proposed action DEQ must determine the significance of the impacts. ARM 17.4.608. This determination is the basis for the agency's decision as to whether it is necessary to prepare an environmental impact statement. Under ARM 17.4.608, DEQ must consider the criteria in the table below to determine the significance of each impact on the quality of the human environment.

The significance determination is made by giving weight to these criteria in their totality. For example, impacts identified as moderate or major in severity may not be significant if the duration is short-term. However, moderate or major impacts of short-term duration may be significant if the quantity and quality of the resource is limited and/or the resource is unique or fragile. Further, moderate or major impacts to a resource may not be significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS

EIS No Further Analysis Needed

EA Prepared By: Bryan Allison

Title: Reclamation Specialist

EA Reviewed By: J.J. Conner

Title: Acting Opencut Section Supervisor



RCVD VIA ELECTRONIC FTS 4/7/2022



RCVD VIA ELECTRONIC FTS 4/7/2022

