

General Project Report

For

GOODWIN SOLID WASTE DISPOSAL FACILITY

Conditional Use Permit Modification

For

Mesa County

Prepared For:

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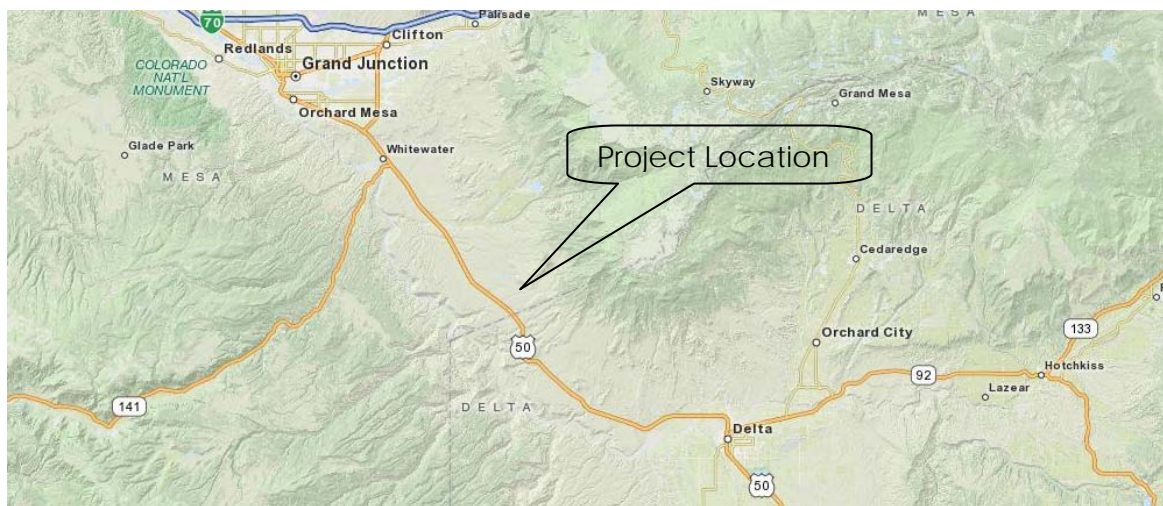
336 Main Street, Suite 203
Grand Junction, Colorado 81501

Job Number: 1128.0001

April 2010

Project Description:

The purpose of this application is to request a modification to an existing Conditional Use Permit (CUP) for the Goodwin Solid Waste Disposal Facility located in Mesa County, Colorado. The 96-acre site is located approximately 20 miles southeast of Grand Junction on Highway 50, near the Mesa County and Delta County line. The general project location is depicted on the map below:



The facility was approved by Mesa County and the Colorado Department of Public Health and Environment (CDPHE) in 1996 to treat and dispose of restaurant grease trap wastes, sand/oil separator wastes. Various amendments have been approved by Mesa County and the CDPHE which also allows the facility to treat any non-hazardous liquid wastes, petroleum contaminated soils, sanitary sewer septic wastes, and a land farm / composting facility.

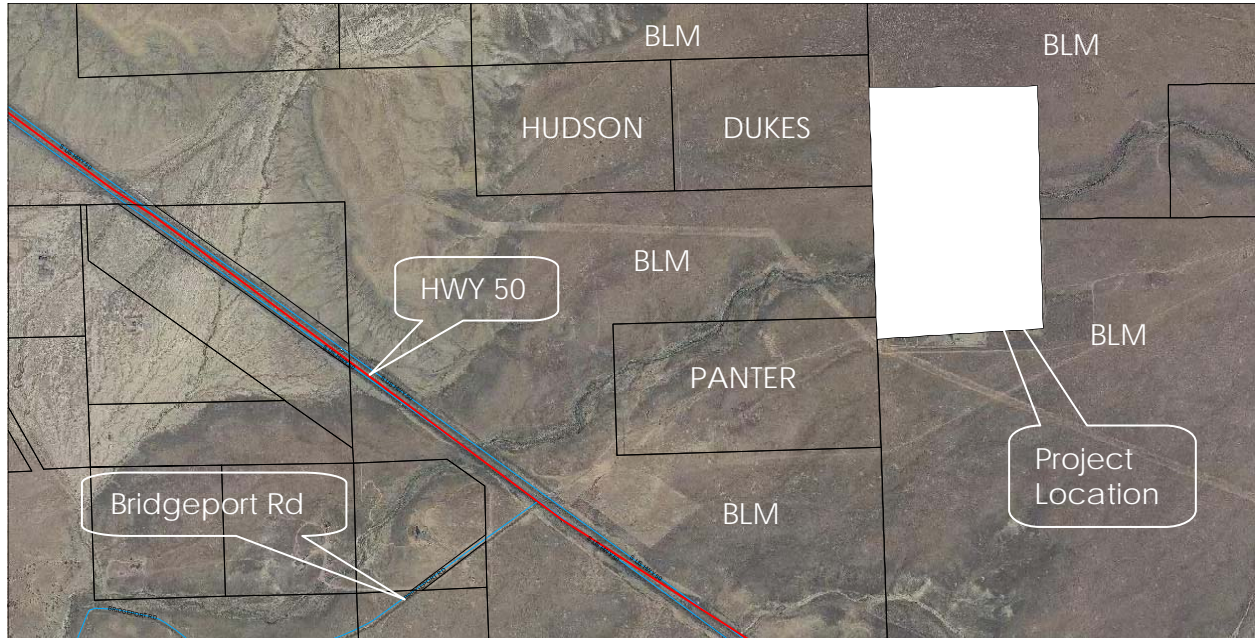
This CUP amendment requests approval to expand the facility to treat oil and gas industry non-hazardous liquids and solids and to also treat other non-hazardous solid waste streams that can be remediated using land farm processing techniques.

The site and facility is owned and operated by Brent and Uvonne Gale of Goodwin Septic Service of Grand Junction, Colorado.

Goodwin Solid Waste Disposal Facility
Conditional Use Permit Modification

PROJECT LOCATION:

The site includes two parcels totaling approximately 96.3 acres. The parcels are described as Lot 4, Section 35, T13S, R 98W; and NE1/4, NE1/4, Section 2, T 14S, R 98W, of the Ute Meridian. See the Location Map listed below:



LOCATION MAP

EXISTING FACILITY

The waste disposal facility has been owned and operated by Brent and Uvonne Gale with Goodwin Service Inc. since 2006. The facility consists of a series of settlement and separator tanks to separate grease /grit material from the waste water. The waste water is discharged into an onsite clay lined evaporation pond. Grease and grit materials collected in the separator tanks are removed and land farmed on the eastern end of the facility.



Goodwin Solid Waste Disposal Facility Conditional Use Permit Modification

In June 1997, an amendment to the CUP was approved by Mesa County (MCM97-129) to permit additional waste haulers to access the facility. Prior to this approval, the facility could only be used to dispose of wastes collected by Goodwin Septic Services.

In August 1999, an amendment to the CUP was approved by Mesa County (MCM 99-134) to allow the disposal of other compatible, non-hazardous liquid waste streams.

In April 2004, an amendment to the CUP was approved by Mesa County (MCM 2004-073) to include land farming and treatment of sanitary sewer septage wastes from septic tanks and wastewater treatment plants. The septage wastes and bio-solids were land farmed and composted at the site to produce a composting material that could be sold to municipal and commercial users. The septage treatment, land farm and composting facility operations are located north of the existing grease / sand trap evaporation pond facilities as generally depicted below:

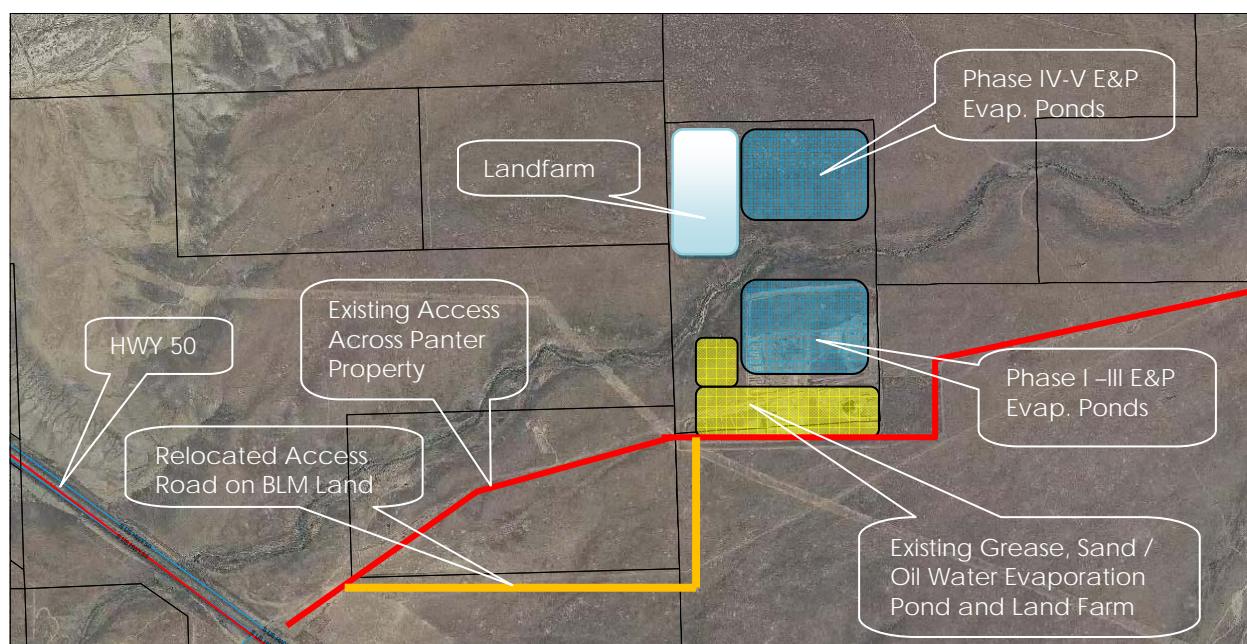


The facility is approved for the treatment and disposal of non-hazardous solid and liquids. The facility also has the capability to treat petroleum contaminated soils which historically have been disposed of in the Mesa County Landfill. As can be seen by the numerous amendments to the CUP over the past sixteen years, the facility has been able to adapt and successfully treat several different waste streams.

The treatment facility is an ideal location for evaporative and land farm treatment processes due to its remote location, access from Highway 50, and excellent climatic conditions for evaporation.

PROPOSED FACILITY AMENDMENT

This modification request proposes to (1) expand the evaporation pond capacity to treat oil and gas exploration and production (E&P) non-hazardous water and non-hazardous solids such as drilling mud and tank bottoms which can successfully be remediated using conventional land farming techniques; (2) construct an underground injection well for final disposal of E&P liquids; and (3) relocate the existing grease/sand/oil water separator evaporation pond and construction of an additional grease/sand/oil water separator evaporation pond. The photograph below depicts a general layout for the proposed facility expansion:



The evaporation pond expansion area for the (E&P) water is generally located on the northern 58 acres of the site. At ultimate build out, the E&P treatment area will contain ten (10) evaporation ponds, offloading tanks, oil/water separator units and an injection well.

The improvements and operations for the E&P disposal facility is anticipated to be constructed in four (4) phases. Phase 1 of the project anticipates construction of the BLM access road, relocation of the Grease / Sand / Oil Water separator pond, Pond 1 and Pond 2 located on the east end of the southern portion of the site as well as the load out facility and installation of the injection well. Initially the load out facility will include three (3) offloading tanks, two (2) interim storage tanks and one oil/water separator. Berms will be constructed on the down gradient side of the facility to mitigate effects to Deer Creek and the adjacent properties.

Goodwin Solid Waste Disposal Facility
Conditional Use Permit Modification

Phase 2 will include installation of Pond 3 and Pond 4 located on the southern end of the site.

Phase 3 will include installation of the Deer Creek access road crossing, and the pipeline connecting Phase I-III to the injection well, CDOT access improvements at Highway 50, and construction of Ponds 5, 6, and 7.

Phase 4, the final phase, will include construction of Ponds 8, 9, and 10, a storage tank on the south end of Pond 10, and expansion of the offloading area.

All evaporation ponds proposed for the site will be double-lined high density polyethylene (HDPE) geosynthetic liner with a drainage net sandwiched between the two HDPE layers. The lining system will include one 60-mil liner and one 40-mil liner which complies with ASTM and other industry standards. HDPE is well suited for this purpose because it is UV resistant and chemical resistant. The HDPE liners have an anticipated lifespan of 20 to 30 years. Production water is a combination of free liquids, water, and condensate; much of which contains hydrocarbons in various forms. The production water will flow through all 10 ponds with the water in each pond becoming progressively more concentrated. Eventually concentrated material from ponds will be removed and disposed in the injection well.

The drainage net sandwiched between the two HDPE liners serves as a leak detection system for the ponds. Any leaks in the exterior liner will seep into the drainage net and gravity drain to a sump area at the low point of the ponds.

To provide an additional measure of safety to the facility, containment berms will be constructed for the E&P ponds and offloading areas to insure all runoff water within the work area is contained and to also prevent offsite runoff water from entering the work areas. E&P ponds will be designed to contain runoff from the 100-yr storm event

The interior berm walls between ponds will be covered with a protective layer of 60-mil high density polyethylene (HDPE) membrane liner. The HDPE will provide erosion control. The area between the evaporation ponds will also be covered with HDPE to prevent erosion, control dust and enhance evaporation.

Goodwin Solid Waste Disposal Facility Conditional Use Permit Modification

The existing grease / sand oil water evaporation pond operations and land farm portion of the site will primarily function as it is currently, with a few modifications and improvements to enhance public health and safety as well as add functionality for the E&P disposal facility. The existing facility operations will remain within the approximately 17 acre area that the operation currently exists. The existing 0.5-acre evaporation pond will be relocated and constructed with the same liner and leak detection system described for the E&P evaporative ponds. Once the existing pond has been relocated the existing pond will be lined and used for additional operation capacity. Evaporation and waste disposal will continue in accordance with the previous CUP permits for the site. The land farming and final product storage will also remain in the existing area in accordance with the previous permits. Disposal operations will continue to include non hazardous solids wastes that can be successfully land farmed. Other non-hazardous solid wastes such as drilling muds, tank bottoms, and sediment collected in evaporation ponds will also be land farmed as required by Mesa County's Evaporation Pond Facilities/Land Farms Policies.

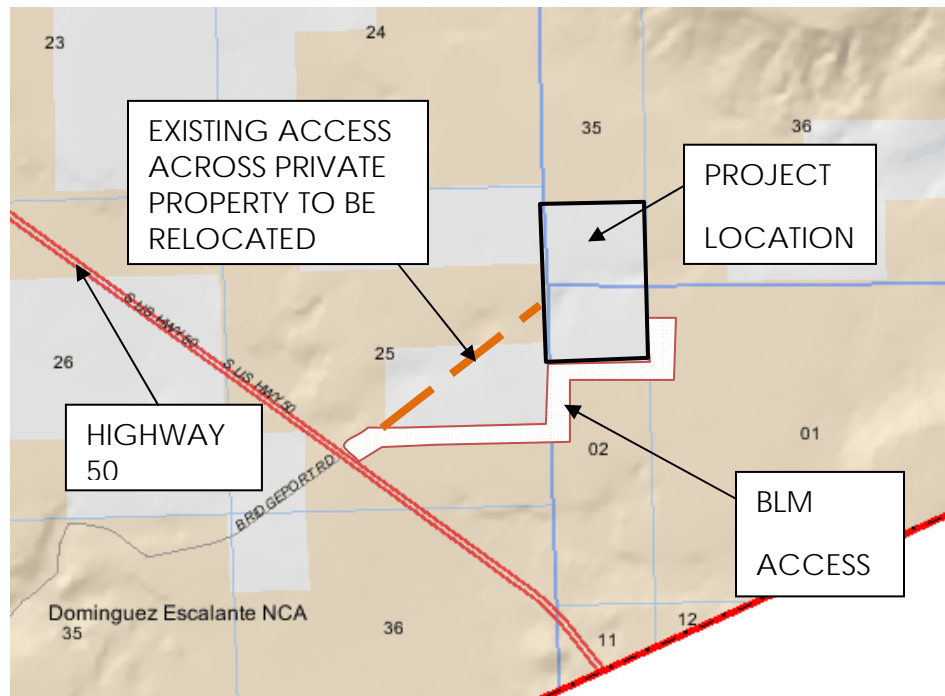
ACCESS

Access to the site is proposed to connect to Highway 50 approximately 0.7 miles south west of the site. The project will improve the existing Bureau of Land Management road. The applicant is in process of obtaining a 30-foot wide right-of-way from the BLM. Improvements to the road will include widening it to 22-foot width of road base and gravel.

The existing road to the site is provided by an easement which crosses a private parcel owned by Panter. The current access through the Panter property will be re-routed onto BLM property to minimize impacts of additional truck trips to the treatment facility. The BLM access road will need to be installed prior to beginning operations under this CUP for the evaporation pond facility and connectivity to the parcels north and west of the site.

Prior to beginning Phase 4 the project, or when the truck trips to the site exceed ten trips per hour, the project will install construct modifications to the existing Highway 50 access as required CDOT. The parameters of the improvements are outlined in the Level II Traffic Assessment for Deer Creek Evaporative Ponds prepared by TurnKey Consulting LLC. included with this application. A CDOT Access Permit application has been submitted and can be approved once the applicant has an approved BLM Access permit and the phasing of the project is approved by Mesa County as part of this CUP amendment.

The photo below depicts the surrounding properties along with the general location of the proposed access.



Utilities:

No utilities are required for this site. A water truck will be utilized to import non-potable water for dust control. Portable toilets will also be used on site.

Stormwater:

The subject property currently drains into Deer Creek which ultimately discharges into the Gunnison River. See the attached Drainage Report for historic and developed drainage condition evaluations.

All drainage facilities including pond configuration and drainage structures will be in accordance with the respective CDPHE permits.

The project site requires special drainage consideration because of its size. Perimeter berms will be constructed on the property to collect on-site runoff. The berms will provide mitigation of on-site runoff to adjacent properties and Deer Creek. The perimeter containment berms will be designed to contain the 100-year runoff volume with a minimum 1-foot free board. Containment berms will also be constructed around each of the respective pond areas. The berms installed adjacent to the ponds will be designed to allow maintenance vehicle access. Berms around the ponds will allow 2-foot of freeboard.

The site will be inspected weekly and after any significant storm event. Site inspections will be recorded. As required by the permit, any repairs will be reported to CDPHE within 72 hours.

Effects on Public Facilities:

This project will not place increased demand on public facilities. See the included Level II Traffic Assessment included with this submittal for traffic impacts.

Site Soils and Geology

Soils on the site will not require any special considerations. See the attached Geotechnical Investigation from Ground Engineering.

Soils on the project site have been classified by the US Department of Agriculture Natural Resource Conservation Service (NRSC). The soil types at the site have been classified to include Ustaline, sodic-Ustaline complex including both 3-12 percent and 12-25 percent slopes, very stoney. The soils include well drained soils.

Impact of project on site geology and geological hazards, if any

Construction of the ponds will be accomplished using excavation equipment. No blasting will be required for this project. All side slopes of the ponds and berms will be constructed at 3:1 slopes. Therefore construction and operation of the site will not impact the surrounding site geology, and no geological hazards are expected with this proposed project.

A letter from James M. Soule with the Colorado Geological Survey-Division of Minerals and Geology has the following opinion in a letter dated June 26, 1996:

From a geologic standpoint this site is not only an acceptable site for this activity as described in the submitted documents, it is a nearly ideal site. Its position away from modern drainage courses, soil profile and age of soil development on it, and low permeability shale bedrock all will serve to isolate and contain wastes to be processed and/or buried. For this reason, we have not geology-related objection whatsoever to your approval of this proposal.

Ground water monitoring wells have been installed. Ground water has not been observed in the wells upstream or downstream of the site. There are no drinking water wells in the area. The nearest well to the facility is located more than 600 feet away from the site which is the typical offset for State well permit applications.

Since there is no groundwater on the site, wet/dry monitoring wells have been installed down gradient of each of the respective ponds. The wells have been installed to a total depth of 20 feet below ground surface (bgs) and been screened from 5 feet to 20 feet bgs. The wells have been installed to bedrock level. Drawing details for the wells will be included as part of the State application. See the attached plans for the location of the wells.

Wetlands

A preliminary wetlands delineation has been performed by Rare Earth Science to determine what effects the project might have on wetlands and jurisdictional waters of the United States. The Deer Creek crossing will be considered jurisdictional wetlands and waters of the U.S. by the Corps of Engineers because that reach of Deer Creek appears to be a "non-navigable tributary of traditional navigable waters that is relatively permanent or flows at least seasonally (e.g., typically three months of the year)."

If disturbance to the Deer Creek corridor is to occur, it could be permitted under Nationwide Permit 39 (Commercial and Institutional Developments), provided the surface disturbance does not cause a loss of more than 1/2 acre of wetlands, including the loss of no more than 300 feet of stream bed. If disturbance is less than 1/10 of an acre, the district engineer may choose not to require mitigation. If mitigation is required, the replacement ratio will be at least 1:1.

Containment berms provided will mitigate impacts of the facility on the wetlands adjacent to the site.

Signage plans

A freestanding sign will be erected near the proposed entrance west side of the project site to post the State of Colorado required identification information. The sign will be less than 1.5 square feet.

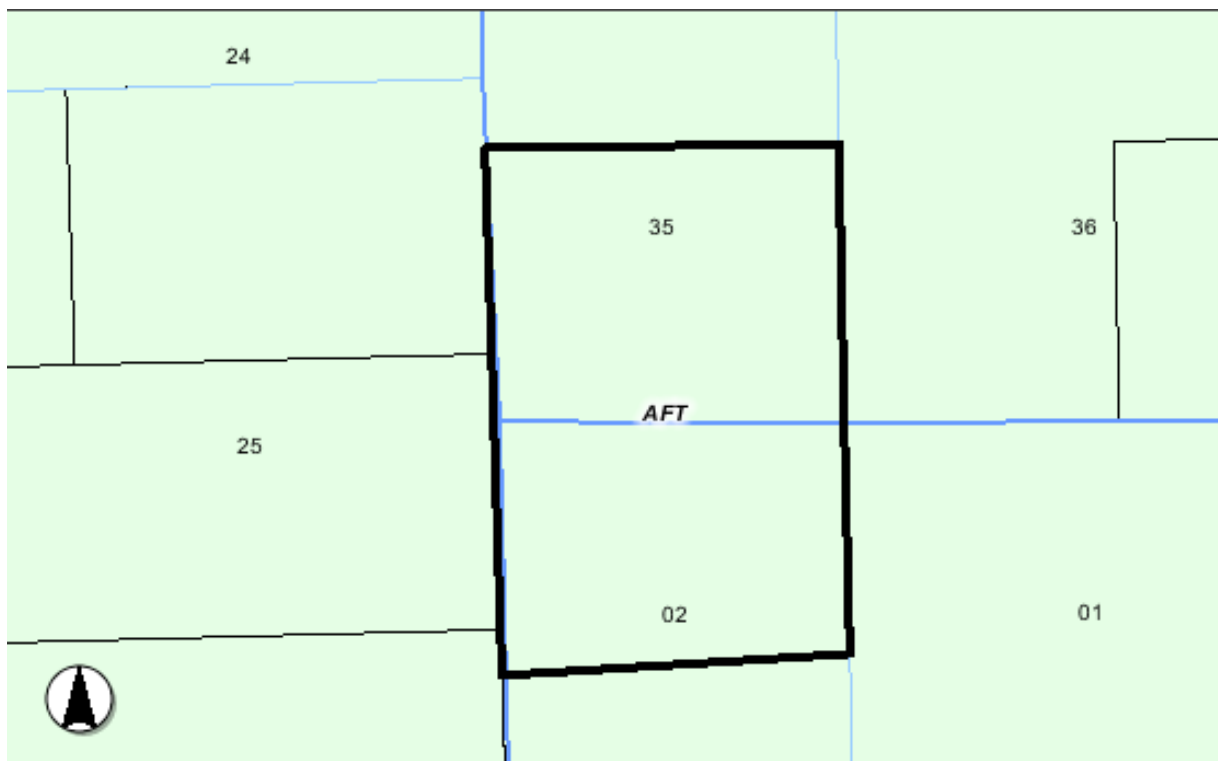
Surrounding Land Uses and Zoning

Land uses in the immediate area include primarily public lands and large vacant and/or ranching properties. The subject property and all surrounding properties are zoned Agricultural, Forestry, Transitional (AFT). AFT zoned areas are intended to provide for agricultural uses and very low density single family housing. The properties in question, including nearby privately-owned lands do not lend themselves to residential development due to lack of services. Agricultural uses are limited to grazing operations due to lack of irrigation water and agronomically poor soils. The nearest building is located southwest of the site and exists currently as a concrete slab. All other residences and buildings are greater than one half-mile away.

The site is currently zoned. AFT

The following provides the adjacent properties zoning and current land use.

DIRECTION	ZONING	CURRENT LAND USE
North:	AFT	Vacant Land
South:	AFT	Vacant Land
East:	AFT	Vacant Land
West:	AFT	Concrete Pad, Vacant Land



MESA COUNTY LAND DEVELOPMENT CODE APPROVAL CRITERIA

Section 3.1.17 of the Mesa County Code sets the standards for the General Approval Criteria. “In addition to specific approval criteria listed for each type of development review process, the Decision-Making Body shall consider the proposal”:

Complies with all applicable standards, provisions, and the purposes (sec. 1.5) of this Land Development Code;

RESPONSE: The Deer Creek Evaporative Ponds Project is consistent with the Code. Issues regarding road impacts and the mitigation of environmental impacts will be addressed to ensure public safety and protect the surrounding area.

Is consistent with review agency comments; and

RESPONSE: The applicant will address all Mesa County Review Agency comments and coordinate with the CDPHE, and CDOT to comply with all requirements associated with the project.

Is consistent with applicable intergovernmental agreements between the County and other entities.

RESPONSE: The application will comply with all agreements between the County and the governmental agencies responsible for activities associated with this project.

Response To Conditional Use Permits: Approval Criteria Section 3.8.7

The proposed use is not significantly different from adjacent uses in terms of appearance, sight design, operating characteristics (hours of operation, traffic generation, noise, odor, dust, and other external impacts) or, if the use is different, that any adverse impacts resulting from the use will be mitigated to the maximum extent practical and reclamation of the site will be adequate for appropriate future uses of the site where applicable;

RESPONSE: Surrounding uses adjacent to the site are currently undeveloped, vacant, and agricultural. Impacts to the surrounding community will occur regardless of the location of Evaporation Ponds. The location of operation is located in currently undeveloped area. A concrete pad has been constructed one-quarter mile west of the existing facility since the last permit revision. To mitigate impacts to the residence the applicant will continue to follow the CDPHE Air Quality Division requirements as well as install berms to provide further mitigation of impact of noise, odor, dust, and other external impacts including visual impact.

Proper evaluation of operations can mitigate adverse impact as well as maximize the benefits for the site and surrounding community both during operations and in the future.

Any exterior lighting at the facility will comply with the nighttime light pollution requirements in Section 7.6.7 of the Code. Full cut-off light fixtures are required for all exterior lighting.

Access roads will be updated to BLM standards to mitigate any affects due to traffic. Dust impacts will be controlled with installation of a dust free surface on all roads installed for the project. During construction dust control will be handled by importing water with a water truck. Restricting the use of engine brakes will help mitigate some of the noise associated with the truck traffic.

Odor control will be in accordance with the State's Air Pollution Control Division's permit requirements. Additionally, Perry Buda with the Mesa County Health Department commented on the facility with a letter dated February 9, 2004 with the following statement:

The remote location of the site has been well thought out and its desert location should serve as an example for any such process to prevent odor emissions from interfering with quality of life standards associated with residential living.

Given the location and topography of the site, no landscaping is being proposed other than reclaiming / stabilizing disturbed areas.

To ensure the ultimate effect of the proposed site use is beneficial to the community the Plans are prepared with the following goals in mind:

Goodwin Solid Waste Disposal Facility
Conditional Use Permit Modification

Provide process water disposal facility to meet current and on-going demand in Mesa County for the Oil and Gas Industry

Meet and exceed minimum criteria for evaporation pond facility operations as established in Mesa County Development Code

Create a safe environment for workers and the general public

Protect the natural environment both on-site and off-site

Facilities and services (including sewage and waste disposal, recycling, domestic and irrigation water [where available], gas, electricity, security measures, police and fire protection, and roads and transportation, special fencing, and signage, as applicable) shall be available upon completion of the project to serve the subject property while maintaining adequate levels of service to proposed and existing development during regular, periodic, and peak usages;

RESPONSE: This site lends itself to this use due to the remoteness of the location. It is sparsely settled partially due to the lack of any services. There is no potable water system, no sewer system, no irrigation water, no phone service, and no electrical network. Fire protection would be provided by the Lands End Fire Department and police protection by the Mesa County Sheriff's department. Electrical needs will be provided with on-site generators, appropriately muffled.

Public facilities will increase because of the self-sufficient nature of the evaporative pond facility. The Certificate of Designation will provide detailed plans for facilities and services including security and fire protection.

A sign will be located at the entrance of the site to identify the activities and safety requirements of the facilities.

Buffering for the site will be provided by berms created along the boundaries of the ponds.

Access will be provided as necessary to prevent traffic hazards and minimize traffic congestion in public streets and alleys;

RESPONSE: A Level II Traffic assessment is included with this application analyzing traffic for this area. The traffic assessment will address issues associated with the Colorado Department of Transportation Access Permit.

Adequate assurances of on-going maintenance have been provided;

RESPONSE: Pond slopes and earthen berms will be constructed with a maximum allowable slope of 3 horizontal to 1 vertical to ensure slope stability.

Dust control will be required on days that operations occur within the facility.

Daily inspections of the facility will be conducted and recorded for the life of the facility. A groundwater monitoring system for the site has been installed and will be monitored in accordance with CDPHE requirements. As an additional mitigation measure, the liner will be installed with a leak detection system, which will be operated in accordance with CDPHE requirements.

As part of the state permit, bonding of the reclamation work will be required to insure the work is completed and that proper reclamation has been established.

No oily solids will be allowed to accumulate without being mixed and treated on per the schedule regulated by the CDPHE. Further details will be submitted with the CD application.

All employees working at the Facility will be trained to identify hazardous waste and trained in proper sampling procedures. All personnel will receive initial training pertaining to the responsibilities of each position. Initial training shall include but not be limited to the following:

- 1. Emergency Response/Contingency Plan Response*
- 2. Spill Prevention & Countermeasure Control*
- 3. Rescue*
- 4. Traffic Flow Operations*
- 5. Loading/Unloading*
- 6. Personal Protection Equipment (PPE) use*
- 7. Drug/Alcohol Policy*
- 8. Safety Training*
- 9. Security*
- 10. Fire extinguisher use*

All employees will receive annual refresher training. All training will be documented and training files will be kept on-site for inspection or review.

Each pond will be equipped with a visual depth gauge to indicate the pond liquid level. A table listing the volume of water stored based on the depth of liquid will be provided for each pond in the Facility Design and Operation Manual.

Maintenance of the liners will be a top priority. Care of the synthetic liner will allow optimum performance and mitigate improper discharge. The ponds will be monitored so no improper discharge of waste damages the liner. Vehicle traffic, maintenance, and operation activities will be controlled to prevent damage and ensure the integrity of the liners. Weekly visual inspections of the liner conditions will be conducted and reported. Liner performance will be monitored by checking leak detectors. The inspections will be recorded and kept on file for the life of the facility.

Any significant adverse impacts on the natural environment will be mitigated to the maximum extent practical, including whether soils and geologic suitability are adequate for the proposed use, and whether prevailing winds might cause adverse impacts on the site and off-site;

RESPONSE: Environmental impacts are proposed to be mitigated by the following measures:

Noise - Locating operations and equipment within the permit areas behind berms will minimize noise levels to adjacent areas. In addition, the operation meets or exceeds all the required boundaries set by the County and the State.

Dust - Permits will be required for each aspect of the evaporative pond operation including the site and the processing equipment. As part of the CD application, the applicant will obtain permits from the Colorado Department of

Goodwin Solid Waste Disposal Facility
Conditional Use Permit Modification

Public Health and Environment, Air Quality Division. Water trucks will be used to control dust during construction and on the access roads. Magnesium Chloride will also be used in haul areas when necessary.

Water Quality – A ground water discharge permit will be obtained from the State of Colorado. The permit requires monitoring ground water to insure pollutants don't reach the Gunnison River. A Storm Water Permit will be obtained from the State as well.

Wildlife – The proposed affected area of the project will meet or exceed the minimum requirements set by the Colorado Division on Wildlife (CDOW) during the CD process. The existing facility has been reviewed by CDOW and the applicant has complied with the CDOW requests. A primary concern of the CDOW has been the exclusion of pronghorn to the facility. The facility has complied with this requirement with the existing fence.

The area supports sparse populations of a variety of wildlife. Species observed on or near the property include: cottontail rabbits, jackrabbits, ground squirrels, coyotes, blue birds, snowbirds, ravens, golden eagles, and antelope. The only species that appear to occupy the facility on a full-time basis are rabbits and small rodents. Use by other wildlife species is occasional and often seasonal. The existing barbed-wire perimeter fence around the entire facility hinders access to larger species such as coyotes and antelope. However, the fenced area is small enough that these animals can readily circumvent the fence to access other portions of the open range, and there is more than ample range for grazing antelope. The existence of the present evaporation pond and the proposed evaporation pond in a desert setting may tend to attract wildlife. Frequent human activity at the site will also discourage wildlife from utilizing the site, but will not be prevalent enough to cause undue stress. For example, Highway 50 is located about 1 mile away and is heavily traveled, but it is still common to see rabbits, eagles, antelope, and coyotes along the roadside.

Geology – The soils for the site have been analyzed. Please refer to the attached Geotechnical Investigation. The project will comply with all the recommendations regarding geology and soils for the site. Further Geologic issues will be addressed as part of the CD application.

Drainage – Please refer to the Drainage Report included with this application. The ponds will be constructed with HDPE lined and containment berms will be constructed to limit surface water from leaving the site. No hazardous wastes will be allowed to enter the facility including Resource Conservation and Recovery Act (RCRA) or Toxic Substance Control Act (TCRA) wastes. All drilling fluids will be de-watered before being introduced to land farm areas for processing. Hydrocarbon contaminated solids will be land farmed.

Goodwin Solid Waste Disposal Facility
Conditional Use Permit Modification

Future Impacts – The applicant will prepare a Closure Plan, a Post-Closure Plan and Ground Water Monitoring Plan which will be submitted to the CDPHE with the Certificate of Designation. The applicant will notify CDPHE and Mesa County in writing at least sixty-days in advance of the closure date. The general public notification as well as other closing process will be outlined with the Certificate of Designation application.

There is need for the use on a community wide basis.

RESPONSE: The project will provide the following for Mesa County:

- ✓ *The existing facility has served Mesa County and the surrounding area for over 14-years*
- ✓ *Environmentally friendly waste disposal facility designed to protect public health and the environment*
- ✓ *A waste disposal facility that includes treatment to minimize hydrocarbon concentrations and volatile organic compounds (VOCs) from entering the evaporative ponds*
- ✓ *Land farm operations, that accept non-hazardous hydrocarbon containing wastes, that can effectively degrade hydro carbons with the solid wastes so they can be either used as fill or cost effectively disposed.*
- ✓ *Injection well to dispose concentrate waste on-site*
- ✓ *Added wastewater disposal capacity to the oil and gas and other industrial operations that need facilities where they dispose of their non-hazardous waters.*
- ✓ *New long-term jobs.*