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May 31, 2012

## FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENTAL AGENCIES AND PUBLIC GROUPS

As required by state and federal rules for determining whether an Environmental Impact Statement is necessary, an environmental review has been performed on the proposed action below:

|                |  |
|----------------|--|
| Project        | Existing Sludge Removal from Wastewater Treatment Facility |
| Location       | Conrad, Montana  |
| Project Number | C303212  |
| Total Cost     | \$1,282,000  |

The city of Conrad, through the Conrad Wastewater Facilities Preliminary Engineering Report May 2004 and an Amendment to the 2004 PER in March 2012, both prepared by Morrison Maierle, Inc. identified the need to remove the sludge from their original wastewater treatment cells as the final phase of their wastewater treatment facility upgrade which began in 2009. The original wastewater treatment cells, an aerated cell, and two shallow facultative cells, were constructed in 1972. The sludge has been accumulating in the lagoons since the cells were constructed. When the original cells were taken out of service in June 2010, the two facultative cells had over 1.5 feet of accumulated sludge and the aerated cell was about half full of sludge (approximately 3.5 feet of sludge). Since being taken out of service, the sludge has been drying. The sludge in cells 2 and 3 has air dried and has been stacked along the edge of the cells to prevent it from becoming heavily saturated again. Cell 1 is used as an emergency overflow for the new treatment facility and was used in the wet spring of 2011. The sludge in Cell 1 is still saturated because of the overflow and may require additional dewatering before it can be hauled to a disposal site. There is approximately 6,500 dry metric tons of sludge to be removed.

As noted above, the City has almost completed the upgrade to their new wastewater treatment facility and will not require the continued use of Cells 2 and 3. The sludge removal project will include the removal of sludge from the three existing cells, dewatering if necessary, and hauling the sludge to a landfill or placing the sludge on agricultural land, regrading the bottom of the Cells 2 and 3 to provide positive drainage from the cells, and seeding all disturbed surfaces. Cell 1 will remain in-place to provide emergency overflow storage for the new treatment facility.

The Montana Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency Region 8 (USEPA) regulates the removal, treatment and disposal of wastewater sludge in Montana. Under these regulations, the city of Conrad's lagoon sludge can be land applied or taken to a landfill, the contractor can choose to use either or both of these methods. If the sludge application is limited to one application every 20 years and the sludge is land applied, the sludge can be applied at a rate of one dry ton per acre, regardless of the sludge nutrient content and agronomic uptake rate. However, if the agronomic spreading rates

are determined, the sludge may be applied at a higher rate than one dry ton per acre, which could reduce the required land area. Several nearby landowners have been contacted and expressed interest in accepting the sludge on their land. In addition to land application, the sludge may be placed in a landfill such as the Northern Montana Joint Refuse Disposal District near Valier on Valier Road.

The city of Conrad's wastewater discharge permit (MT0020079), effective May 1, 2006, included a compliance schedule that "Any sludge removal must be completed by April 30, 2011". However, the City did not meet the permit's schedule and the DEQ issued an Administrative Order of Consent (AOC) in February 2011, requiring the City to submit a compliance plan and schedule (Plan) for sludge removal. The City prepared the Plan and submitted it to DEQ which included a sludge removal schedule that would have given the City until September 2016 to remove the sludge. In review of the Plan, the DEQ believed that five years was an unreasonable amount of time to accomplish the work. On April 18, 2011, the DEQ incorporated into the AOC that all the sludge be removed from the lagoons by December 31, 2013.

Costs for the proposed improvements are estimated to be about \$1,282,000. The City will borrow up to \$1,265,000 at 3.75% interest from the State Revolving Fund loan program to cover the design and construction of the project. It is anticipated that construction will take about 90 days to complete.

Federal and State grant/loan programs will fund the project. Environmentally sensitive characteristics such as wetlands, floodplains, historical sites, and threatened or endangered species are not expected to be adversely impacted as a result of the proposed project. No significant long-term environmental impacts were identified.

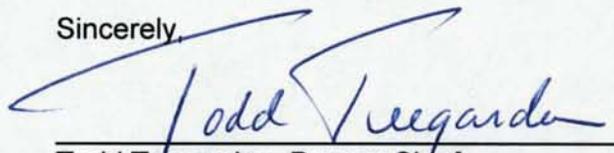
An environmental assessment (EA), which describes the project and analyzes the impacts in more detail, is available for public scrutiny on the DEQ web site (<http://www.deq.mt.gov/ea.mcp>) and at the following locations:

Department of Environmental Quality  
1520 East Sixth Avenue  
P.O. Box 200901  
Helena, MT 59620-09011  
[jpaddock@mt.gov](mailto:jpaddock@mt.gov)

City of Conrad  
411 1/2 S. Street  
Conrad, MT 59425

Comments on the EA may be submitted to the Department of Environmental Quality at the above address. After evaluating substantive comments received, the department will revise the environmental assessment or determine if an environmental impact statement is necessary. If no substantive comments are received during the comment period, or if substantive comments are received and evaluated and the environmental impacts are still determined to be non-significant, the agency will make a final decision. No administrative action will be taken on the project for at least 30 calendar days after release of the Finding of No Significant Impact.

Sincerely,



Todd Teegarden, Bureau Chief  
Technical and Financial Assistance Bureau

**CITY OF CONRAD  
EXISTING SLUDGE REMOVAL  
FROM  
WASTEWATER TREATMENT FACILITY**

**ENVIRONMENTAL ASSESSMENT**

I. COVER SHEET

A. PROJECT IDENTIFICATION

Name of Project: Existing Sludge Removal from Wastewater Treatment Facility  
Applicant: City of Conrad  
Address: 411 ½ S. Main  
Conrad, Montana 59425

Project Number: C303212

B. CONTACT PERSON

Name: Wendy Judisch, Mayor  
Address: 411 ½ S. Main  
Conrad, Montana 59425  
Telephone: (406) 271-3623

C. ABSTRACT

The city of Conrad, through the Conrad Wastewater Facilities Preliminary Engineering Report May 2004 and an Amendment to the 2004 PER in March 2012, both prepared by Morrison Maierle, Inc. identified the need to remove the sludge from their original wastewater treatment cells as the final phase of their wastewater treatment facility upgrade which began in 2009. The original wastewater treatment cells, an aerated cell, and two shallow facultative cells, were constructed in 1972. The sludge has been accumulating in the lagoons since the cells were constructed. When the original cells were taken out of service in June 2010, the two facultative cells had over 1.5 feet of accumulated sludge and the aerated cell was about half full of sludge (approximately 3.5 feet of sludge). Since being taken out of service, the sludge has been drying. The sludge in cells 2 and 3 has air dried and has been stacked along the edge of the cells to prevent it from becoming heavily saturated again. Cell 1 is used as an emergency overflow for the new treatment facility and was used in the wet spring of 2011. The sludge in Cell 1 is still saturated because of the overflow and may require additional dewatering before it can be hauled to a disposal site. There is approximately 6,500 dry metric tons of sludge to be removed.

As noted above, the City has almost completed the upgrade to their new wastewater treatment facility and will not require the continued use of Cells 2 and 3. The sludge removal project will include the removal of sludge from the three existing cells, dewatering if necessary, and hauling the sludge to a landfill or placing the sludge on agricultural land, regrading the bottom of the Cells 2 and 3 to provide positive drainage from the cells, and seeding all disturbed surfaces. Cell 1 will remain in-place to provide emergency overflow storage for the new treatment facility.

The Montana Department of Environmental Quality (DEQ) and the U.S. Environmental Protection Agency Region 8 (USEPA) regulates the removal, treatment and disposal of wastewater sludge in Montana. Under these regulations, the city of Conrad's lagoon sludge can be land applied or taken to a landfill, the contractor can choose to use either or both of these methods. If the sludge application is limited to one application every 20 years and the sludge is land applied, the sludge can be applied at a rate of one dry ton per acre, regardless of the sludge nutrient content and agronomic uptake rate. However, if the agronomic spreading rates are determined, the sludge may be applied at a higher rate than one dry ton per acre, which could reduce the required land area. Several nearby landowners have been contacted and expressed interest in accepting the sludge on their land. In addition to land application, the sludge may be placed in a landfill such as the Northern Montana Joint Refuse Disposal District near Valier on Valier Road.

The city of Conrad's wastewater discharge permit (MT0020079), effective May 1, 2006, included a compliance schedule that "Any sludge removal must be completed by April 30, 2011". However, the City did not meet the permit's schedule and the DEQ issued an Administrative Order of Consent (AOC) in February 2011, requiring the City to submit a compliance plan and schedule (Plan) for sludge removal. The City prepared the Plan and submitted it to DEQ which included a sludge removal schedule that would have given the City until September 2016 to remove the sludge. In review of the Plan, the DEQ believed that five years was an unreasonable amount of time to accomplish the work. On April 18, 2011, the DEQ incorporated into the AOC that all the sludge be removed from the lagoons by December 31, 2013.

Costs for the proposed improvements are estimated to be about \$1,282,000. The City will borrow up to \$1,265,000 at 3.75% interest from the State Revolving Fund loan program to cover the design and construction of the project. It is anticipated that construction will take about 90 days to complete.

Environmentally sensitive characteristics such as wetlands, floodplains, threatened or endangered species, and historical sites are not expected to be adversely impacted as a result of the proposed project. Additional environmental impacts related to land use, water quality, air quality, public health, energy, noise, and growth were also assessed. No significant long-term environmental impacts were identified.

Under the Montana Water Pollution Control State Revolving Fund Act, the DEQ may loan money to municipalities for construction of public sewage systems.

The project will be constructed using standard construction methods and best management practices will be implemented to minimize or eliminate pollutants during construction. A Stormwater Discharge General Permit and a construction-dewatering permit from the DEQ may be required prior to construction. No permits are required from the State Revolving Fund (SRF) section of the DEQ for this project.

The DEQ, Technical & Financial Assistance Bureau, has prepared this Environmental Assessment (EA) to satisfy the requirements of the National Environmental Policy Act (NEPA) and the Montana Environmental Policy Act (MEPA).

D. COMMENT PERIOD

Thirty (30) calendar days

## II. PURPOSE OF AND NEED FOR ACTION

### A. EXISTING WASTEWATER TREATMENT FACILITY

The city of Conrad is located in north central Montana along Interstate 15 on the east side of the continental divide (see Figure 1). The planning area includes the incorporated boundary of the City and selected areas immediately adjacent to the City boundary where future growth is expected in the 20-year planning period (see Figure 2). The city of Conrad's wastewater treatment facility (WWTF) was recently upgraded to an extended aeration activated sludge facility and two of the three original treatment cells are no longer required. The sludge has been accumulating in the lagoons since the cells were constructed in 1972. When the lagoons were taken out of service in early 2010, the average sludge depth in Cell 1 was 3.5 feet and between 1.5 and 1.7 feet deep in Cells 2 and 3. With the lagoons no longer in use, federal law requires the accumulated sludge to be removed from the cells and properly disposed of in a landfill or through land application at agronomic rates.

### B. REGULATORY COMPLIANCE AND PERMITS

The disposal of sludge via land application is subject to 40 CFR Part 503 – Standards for the Use of Disposal of Sewage Sludge and by the Montana General Permit MTG650000 (Permit). These are administered by the US EPA Region VIII in Denver, Colorado. The Permit details sludge removal, dewatering, and disposal methods based on sludge quality, treatment, and requires sampling and provides for several "coverage" categories for sludge disposal. Based on the categories listed in the Permit, the City expects to dispose of the sludge by means of landfilling (Category 2.b) and/or one-time land application (Category 3). The disposal of sludge via landfill is subject to 40 CFR Part 258 Criteria for Municipal Solid Waste Landfill.

Landfill sewage sludge removed under a Category 2.b permit is defined as:

"Facilities/operations that use/dispose cover facilities/operations that landfill sewage sludge and may also generate and/or treat sewage sludge. Facilities/operations that treat sewage sludge and have someone else use/dispose of the sludge without further treatment (e.g., contractors land applying sewage sludge) are considered to be in this category. The applicant may apply for coverage under the following subcategory:

Subcategory 2.b      Facilities/operations that landfill sewage sludge and may also generate and/or treat sewage sludge."

Placing sludge in a landfill will be subject to 40 CFR 258 - Criteria for Municipal Solid Waste Landfills, which regulate how sludge may be placed in the landfill based on sludge quality and therefore, landfills may have their own sludge testing requirements. Specific requirements for landfill of sewage sludge may include: toxicity characteristic leaching procedure test results, paint filter test (moisture content), vector attraction reduction limitations, and self-monitoring and record-keeping requirements. There are more specific requirements discussed for each of these items noted in the March 2012 Amendment.

Lagoon sludge removed under a Category 3 permit is defined as:

"Wastewater lagoon systems that need to land apply sewage on an occasional,

restricted basis. Under this category the land application of sewage is limited to once every twenty years per land application site and the application rate shall not exceed one dry metric ton per acre unless prior written approval is granted by the permit issuing authority. Sewage sludge may be removed from a wastewater lagoon system more frequently than once every 20 years, but it may be land applied to a specific land application site only once every 20 years under this category.”

Specific requirements for landfill of sewage sludge under Permit Category 3 include: chemical pollutant limitations, pathogen limitations, site restrictions, vector attraction reduction, self-monitoring and record-keeping requirements, storage, and land management requirements (setback, application rates/frequency). There are more specific requirements discussed for each of these categories in the March 2012 Amendment.

The EPA regulations allow a land application rate of no more than 1 dry metric ton per acre regardless of sludge nutrient content and agronomic uptake rate of the vegetation at the application sites, but at this application rate, 6,500 tons of sludge would require 6,500 acres and would be economically unfeasible. Moreover, there is not 6,500 acres of available land near Conrad to apply the sludge. The most economical application rate would be at an agronomic rate, where all the available nutrients in the sludge are used by the crop and then the crop is harvested. The PER considered agronomic uptake rates on land growing hay and winter wheat crops based on published literature for these crops in Montana and soil information that was obtained from the land owner. Typically for a winter wheat crop with a potential yield of 60 bushels per acre and available nitrogen of 156 pounds per acre (from the sludge and the soils), a maximum application rate of about 17 dry metric tons per acre could be utilized and for a hay crop with a potential yield of 3 tons per acre (from the sludge and the soils), a maximum application rate of about 8 dry metric tons per acre could be utilized. It was therefore assumed that an average of 12 dry tons per acre would be the basis of the design. With an estimated 6,500 dry metric tons of sludge to be removed and an average application rate of approximately 12 dry tons per acre, about 600 acres of land would be required to dispose of the sludge. The City has the interest and approval from property owners for approximately 1,000 acres of agricultural land to dispose the sludge on, therefore at this rate of application, options 1, 2, 3 and 5 considered under this alternative are feasible. The sites available for land application are shown on Figures 3, 4 and 5.

### III. ALTERNATIVES INCLUDING THE PROPOSED ACTION

- A. **SLUDGE REMOVAL** – The 2012 Amendment for Sludge Removal to the 2004 PER (2012 Amendment) included 10 options to remove and dispose of the sludge. Five of the sludge removal options proposed that most of the work would be completed by the city of Conrad staff and therefore these were grouped into one alternative and four options proposed that all work would be completed by a contractor, and therefore these options were grouped into one alternative. The 2012 Amendment did not include a “No Action” alternative, however the 2004 PER did include a No Action alternative and it discussed the ramifications to the City if the No Action alternative was chosen. The three alternatives and associated options to be considered in this EA are summarized below:

1. No Action
2. City of Conrad Performs the Work – Five Options
3. Contractor Performs the Work – Four Options

1. **NO ACTION** – The May 2004 PER No Action sludge removal alternative allowed deferring the sludge removal to an undetermined time and partly resulted in the DEQ Administrative Order of Consent (AOC). Because the city of Conrad is now under an AOC for the sludge removal, they must remove the sludge from the old treatment cells by December 31, 2013. Therefore, the no action alternative is not a viable alternative and was not recommended.
2. **CITY OF CONRAD PERFORMS THE WORK** – This alternative in the 2012 Amendment included the evaluation of 5 options in which City forces would perform most of the work. Options 1 through 4 included a dredging operation to remove sludge from the cells where the sludge would be removed in a liquid stage. This may require that water be added to the dried sludge in Cells 2 and 3 to make it back into a slurry. A dredging operation would consist of a floating pump, discharge piping and suction tube with an auger. The dredge pump would discharge the slurry to dewatering equipment or tanker trucks for disposal off the wastewater treatment site.

Option 1 proposed liquid injection for disposal of the sludge, which can only be land applied, the other four options proposed both land application and landfill disposal of the sludge. Option 2 proposed dewatering the sludge using mechanical methods, such as mobile belt filter presses, which the City would rent. Option 3 proposed dewatering using geotubes, which are large permeable woven geotextile containers (socks), that once pumped full of liquid sludge allow the water to slowly drain from the sock. Option 4 proposed using the sludge thickener and drying beds which were installed as part of the new wastewater treatment upgrade in 2009. Option 5 proposed to continue allowing the sludge to air dry, but would use equipment to push and/or stack the sludge to facilitate the drying within the cells. Option 4 was dismissed quickly when capacity calculations of the thickener system showed it would take over 13 years to thicken the entire volume of sludge to be removed. Under all land application options considered, the property owner would till the sludge into the soil. If City forces were to perform the work, it is likely that several of the methods would be used and the City would be required to hire staff and rent equipment to do most of the work.

3. **CONTRACTOR PERFORMS THE WORK** – This alternative in the 2012 Amendment proposed a “contractor turn-key” project and discussed four options which included four quotes solicited from three contractors to remove the sludge. Due to the preliminary nature of the quotes, different assumptions were made by each of the contractors and the quotes varied significantly in cost and scope of work. However, the quotes provided the City an idea of the different removal and dewatering methods and expected cost for the project. The general scope of work included in the four quotes are summarized as follows:

The quote for Option 1 proposed to allow all the sludge to air dry in the cells, haul the dried sludge to the disposal site and spread the sludge on the land application site. The quote for Option 2 included dredging the sludge from all cells and dewatering the sludge using geotubes. It did not include hauling and spreading the sludge on the application site. The Option 3 quote included dredging the sludge from all cells, hauling the sludge to the application site, and surface application. The quote for Option 4 included dredging the sludge from all cells, dewatering the sludge using geotubes,

hauling the dried sludge to the site, and surface application of the sludge. Under all land application options considered, the property owner would till the sludge into the soil. It is likely that several of the methods presented would be used to remove and dewater the sludge, and although some sludge may be landfilled, most of the sludge would be land applied.

**B. COST COMPARISON FOR ALTERNATIVES**

Summaries of the two viable alternatives are provided in Table 1.

| <b>TABLE 1<br/>ECONOMIC EVALUATION OF ALTERNATIVES</b> |                          |
|--|--------------------------|
| <b>Alternative</b>                                     | <b>Range of Cost:</b>    |
| 2 City of Conrad Performs the Work                     | \$675,000 to \$2,000,000 |
| 3 Contractor Performs the Work                         | \$620,000 to \$3,700,000 |

The city of Conrad decided that hiring a contractor for a turn-key project to remove and dispose of the sludge was their preferred alternative. The cost was estimated to be \$1,282,000. The city of Conrad will borrow up to \$1,265,000 at 3.75% interest from the State Revolving Fund loan program to cover the project cost. It is anticipated that construction will take up to 90 days.

The financial impact of this project on the system users is shown in Table 2. Based on the EPA guidance for project affordability, the proposed project will result in a monthly cost per household that is 1.07% of the monthly median household income and therefore is not expected to impose a significant economic hardship on household income. The proposed rates are based on the number of current hookups (households).

| <b>TABLE 2<br/>PROJECT AFFORDABILITY</b>            |            |
|---|------------|
| Existing Monthly wastewater service rate            | \$31.61    |
| Total monthly user cost <sup>1</sup>                | \$35.10    |
| Monthly median household income (mMHI) <sup>2</sup> | \$3,287.00 |
| User rate as a percentage of mMHI                   | 1.07 %     |

<sup>1</sup> March 5, 2012 Uniform Application for Montana Public Facility Projects

<sup>2</sup> Based on US Census Bureau, 2006-2010 American Community Survey

**C. BASIS OF SELECTION OF PREFERRED ALTERNATIVE**

Although options were considered that included the city of Conrad performing the work to remove and dispose of the sludge, the City decided to hire a contractor to remove and dispose of the sludge. Due to the size of the project, a formal bidding process will be required that will include contract documents, drawings and specifications. The City's decision to utilize a contractor was partly based on the compliance schedule in the AOC that requires the sludge to be removed from the existing treatment lagoons by December 31, 2013.

**D. SELECTED ALTERNATIVE**

The City has decided to hire a contractor to remove and dispose of the sludge located in the existing three old treatment lagoons. Final disposal of the sludge will include removal of the sludge from the lagoons cells, dewatering the sludge if necessary, and transporting the sludge to a landfill or to a land application site. Sludge applied to the land will require the sludge to be tilled into the soil within six hours. The land applied sludge will be to agriculture land, at a rate not greater than agronomic rates, which allow nutrient up-take by crops for several years.

#### IV. AFFECTED ENVIRONMENT

##### A. PLANNING AREA

The city of Conrad is located in Pondera County in north central Montana and is located 63 miles north of Great Falls, Montana. The elevation of Conrad ranges from 3500 to 3530 feet above sea level. The planning area includes the incorporated city limits, however, the sludge disposal sites are located outside of the city limits.

##### B. NATURAL FEATURES

The 3 existing treatment lagoons include approximately 23 acres of surface area. With the upgrade to the new treatment facility in 2010, the three lagoon cells are not needed for treatment of wastewater; however one cell will remain available for emergency high flow storage. The new treatment facility will continue to discharge to the Dry Fork of the Marias River.

Environmental impacts anticipated from the sludge removal project are expected to be minimal. Once the sludge has dried enough to allow handling, most of the sludge will be removed from the site, the bottom of the cells will be regraded to provide positive drainage from the cells, and the cells will be seeded to stabilize the soil. The sludge application sites are currently used for growing wheat or hay. Either later in the fall or early spring the sites will be planted with wheat.

##### C. MAPS

Figure 1 shows the general location of the city of Conrad within the state of Montana. Figure 2 shows the city of Conrad Planning Area and city limits, and the location of the wastewater treatment facility. Figure 3 is an overview map of all the proposed land application sites. Figures 4 and 5 shows the land application sites in greater detail.

#### V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

##### A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Land Use – The City owns the site where the existing wastewater treatment lagoons are located. The three existing treatment lagoons were taken out of service in June 2010 and the sludge has been drying as water was removed from the cells either through evaporation or decanting. The sludge will be removed and will be applied to fields that are currently used for crop production or taken to a landfill. Sludge will be applied to sites including prime farmland or farmland of statewide importance. The sludge is expected to increase production of the crop on these lands and therefore will

be a positive impact to the land. Landowners within a reasonable haul distance have expressed interest in receiving the sludge and land application is the least expense option. However, some sludge may be placed in a landfill, such as the Northern Montana Joint Refuse District landfill near Valier.

2. Floodplain – The proposed land application sites are not located within a delineated 100-year floodplain according to the FEMA Pondera County Floodway Maps and State of Montana Department of Natural Resources and Conservation floodplain management section. Therefore, this project would not require a floodplain development permit.
3. Wetlands – The sludge removal and dewatering work at the existing wastewater treatment facility (WWTF) will be within the existing lagoons and within the existing wastewater treatment site, where land has already disturbed. No wetlands are expected to be impacted during work within the existing treatment facility. The sludge will be placed on land previously disturbed by farming and should not impact any wetlands. The Montana Natural Resource Information System (NRIS) site did not show wetlands on or near the areas proposed to receive the sludge. All streams, canals, or drainage ditches will have a 35' buffer where sludge will not be applied and therefore wetlands, if they exist, are not expected to be impacted.
4. Vegetation – The existing lagoons do not have established vegetation. The sludge application sites are fields that are currently used for crop production. Therefore, vegetation will not be significantly affected by the proposed project. The Montana Natural Heritage Program listed no plants of concern.
5. Cultural Resources – According to the Montana State Historic Preservation Office (SHPO), there appears to be no properties on, or that are eligible, for listing on the National Register of Historic Places within the WWTF or the application sites.
4. Fish and Wildlife – The Montana Natural Heritage Program (MNHP) listed the Dwarf Shrew (a mammal) as a species of potential concern in the project area; however, NatureServe (natureserv.org) indicated that this species is not found in Pondera County. The MNHP listed Swainson's Hawk as a bird of concern in the project area. Aquatic and animal life will not be significantly affected by the proposed project. The project should not affect any wildlife habitats because the sites are currently used for crop production.
5. Water Quality – The sludge removal work will be within the existing lagoons, and sludge dewatering, if necessary, will occur within the existing wastewater treatment site. Water from the dewatering process will be sent to the wastewater treatment facility for treatment. Therefore water quality at the wastewater treatment facility is not expected to be impacted. Work outside the lagoons will require best management practices such as silt fence to restrict runoff from the work area. At the sludge application sites, which are fields currently used for crop production, all streams, canals, or drainage ditches will have a 35' buffer where sludge will not be applied and therefore water quality due to sludge application will not be impacted. The sludge will be applied at agronomic rates, or hauled to a landfill, therefore there will not be an impact to water quality. All sludge applied to the land will be tilled into the soil within 6 hours of application.
6. Air Quality – Short term negative impacts on air quality will occur during the sludge

removal process from heavy equipment in the form of dust and exhaust fumes. Minimal odors are expected from the sludge as the dried sludge has mostly been stabilized. However, there may be temporary odors during the land application process, but these should disperse after the sludge has been tilled into the soil. The sludge will be tilled into the soil within 6 hours, a requirement of the EPA regulations. Proper construction practices will minimize dust and odor problems. Project specifications will require dust control.

7. Public Health – Public health impacts will be minimized with the proposed project. Land application of the sludge will not impact human health if the regulations for sludge disposal are met. The sludge application sites are located in rural areas where public exposure is minimal. Signage will be posted around the application areas if they are adjacent to public roads. Harvesting of the crop may not occur immediately after receiving the sludge.
8. Energy – A direct short-term impact of energy resources will be consumed to remove, dewater and apply the sludge. In the long-term, no increase in energy consumption will occur.
9. Sludge Disposal – After dewatering, if necessary, the sludge will be removed from the existing lagoons, loaded onto trucks, and either hauled to agricultural land and applied at agronomic rates, or hauled to the landfill. The sludge will be disposed of in accordance with EPA's 503 regulations.
10. Noise – Short-term impacts from excessive noise levels may occur during the construction activities. In the long-term, no noise will occur.
11. Growth – This project will not impact growth.
12. Cumulative Effects – No significant adverse impacts are anticipated.
13. Environmental Justice – Environmental Justice Executive Order 12898: The proposed project will not result in disproportionately high or adverse human health or environmental effects on minority or low income populations. The economic impact will ultimately affect all of the users of the system because of the increase in service costs due to the project costs. However, no disproportionate effect among any portion of the community is expected.

#### B. UNAVOIDABLE ADVERSE IMPACTS

Short-term construction related impacts (i.e., noise, dust, traffic disruption, etc.) will occur but should be minimized through proper construction management. Energy consumption during construction cannot be avoided.

## VI. PUBLIC PARTICIPATION

A presentation on the March 2012 Preliminary Engineering Report Amendment Removal of Existing Sludge (PER) was made to the city of Conrad at a May 7, 2012 council meeting by the City's consulting engineers. No comments or questions from the council or public were asked about the project. The recommendations and PER Amendment were accepted and approved by the city council at the May 7, 2012 meeting.

## VII. REFERENCE DOCUMENTS

The following documents have been utilized in the environmental review of this project and are considered to be part of the project file:

1. Preliminary Engineering Report Amendment Removal of Existing Sludge, prepared for the City of Conrad, by Morrison Maierle, Inc., Helena, Montana, March 2012.
2. Preliminary Engineering Report, Wastewater Facilities, prepared for the City of Conrad, by Morrison Maierle, Inc., Helena, Montana, May 2004.
3. Preliminary Engineering Report Amendment, Wastewater Facilities, prepared for the City of Conrad, by Morrison Maierle, Inc., Helena, Montana, July 2007.
4. Basis of Design Report, Wastewater Treatment Plant Upgrade, prepared for the City of Conrad, by Morrison Maierle, Inc., Helena, Montana, March 2008.
5. Uniform Application Form for Montana Public Facility Projects for the City of Conrad Removal of Existing Sludge, March 3, 2012.

## VIII. AGENCIES CONSULTED

The following agencies have been contacted in regard to the PER, which determined the basis for the proposed wastewater treatment and collection system project:

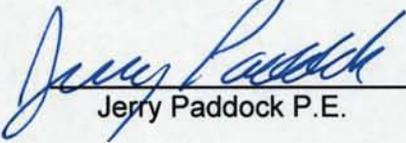
1. The Montana Department of Fish Wildlife and Parks (FWP) was contacted by mail on January 13, 2012, but did not provide any comments regarding the proposed project.
2. The U. S. Fish and Wildlife Service (FWS) reviewed the proposed project and determined the proposed project would not negatively impact fish, wildlife, and habitat resources as long as the sludge is applied at agronomic rates.
3. The Montana State Historic Preservation Office (SHPO) considered the impacts of the proposed project on historical sites and cultural resources and recommended that the sludge be applied to previously disturbed, previously cultivated land, and not on undisturbed rangeland. If the sludge is applied to previously disturbed ground, they felt there was a low likelihood cultural properties would be impacted. The Montana State Historic Preservation Office asks to be contacted and the site investigated should cultural materials be inadvertently discovered during construction.
4. The U.S. Army Corps of Engineers (COE) reviewed the proposed project and responded that if construction activities includes the discharge of fill material, either permanently or temporarily into waters of the United State and lakes or ponds connected to the tributary system, and wetlands adjacent to these waters, then a Department of Army Section 404 permit may be required.
5. Montana Natural Heritage Program website was consulted by the city engineers and the database did not locate any riparian wetlands that the project would impact.
6. Department of Natural Resources and Conservation (DNRC) reviewed the proposed project and did not have any comments.

**Recommendation for Further Environmental Analysis:**

EIS     More Detailed EA     No Further Analysis

Rationale for Recommendation: Through the Preliminary Engineering Report (PER), prepared by Morrison-Maierle, Inc. and the public process involved, the city of Conrad determined that sludge removal from the existing lagoons and disposal of the sludge to agricultural land or to a landfill is in the best interest of the City. Through this EA, DEQ has verified none of the adverse impacts of the proposed sludge removal and disposal project are significant; therefore an environmental impact statement is not required. The environmental review was conducted in accordance with the Administrative Rules of Montana (ARM) 17.4.607, 17.4.608, 17.4.609 and 17.4.610. This EA is the appropriate level of analysis because none of the adverse effects of the impacts are significant. A Finding of No Significant Impact (FONSI) will be issued legally, advertised in the local newspaper, and distributed to a list of interested agencies. Comments regarding the project will be received for 30 days before final approval is granted.

**EA Prepared By:**

  
\_\_\_\_\_  
Jerry Paddock P.E.

5/31/12  
\_\_\_\_\_  
Date

**Approved By:**

  
\_\_\_\_\_  
Mike Abrahamson P.E.

5/31/12  
\_\_\_\_\_  
Date

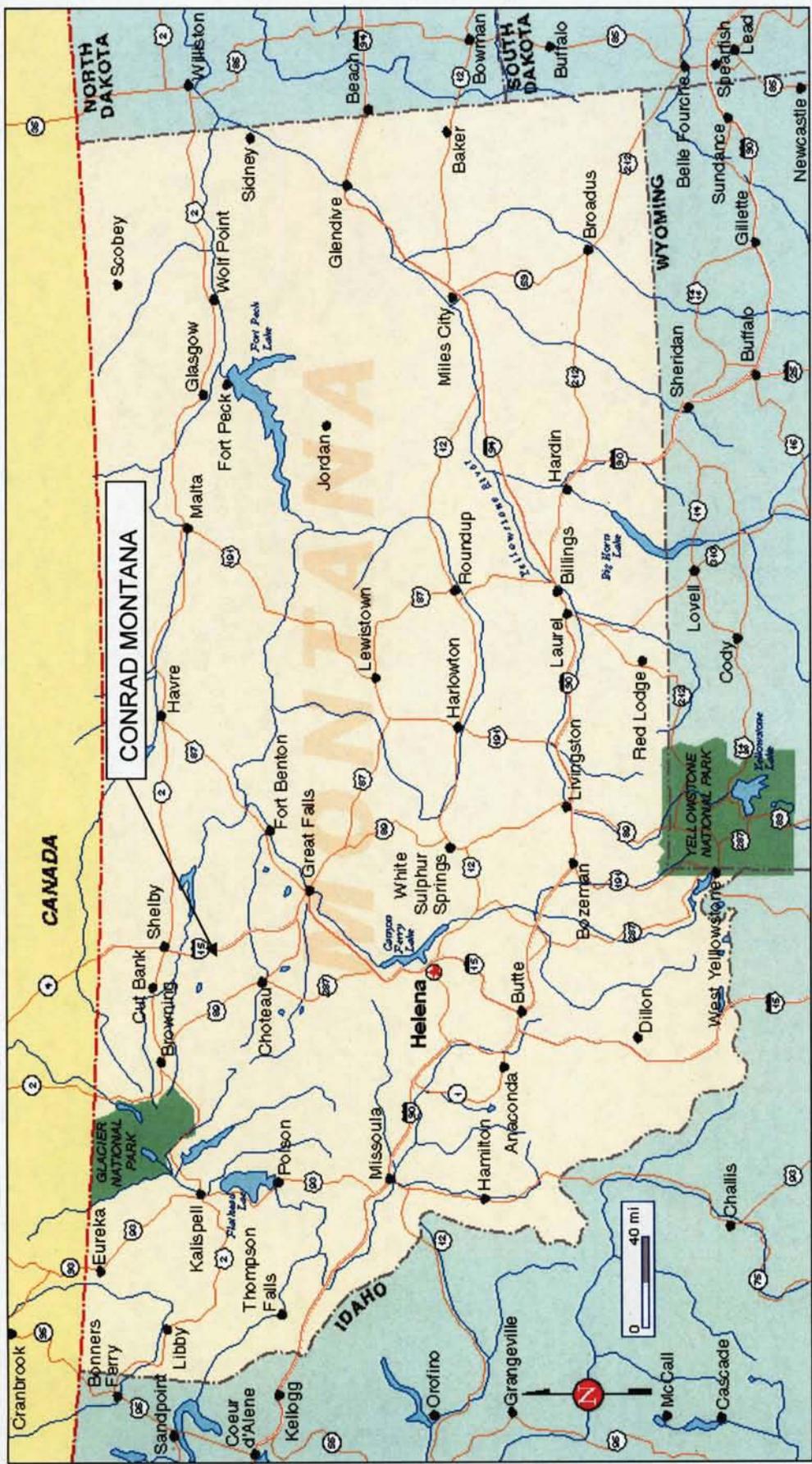
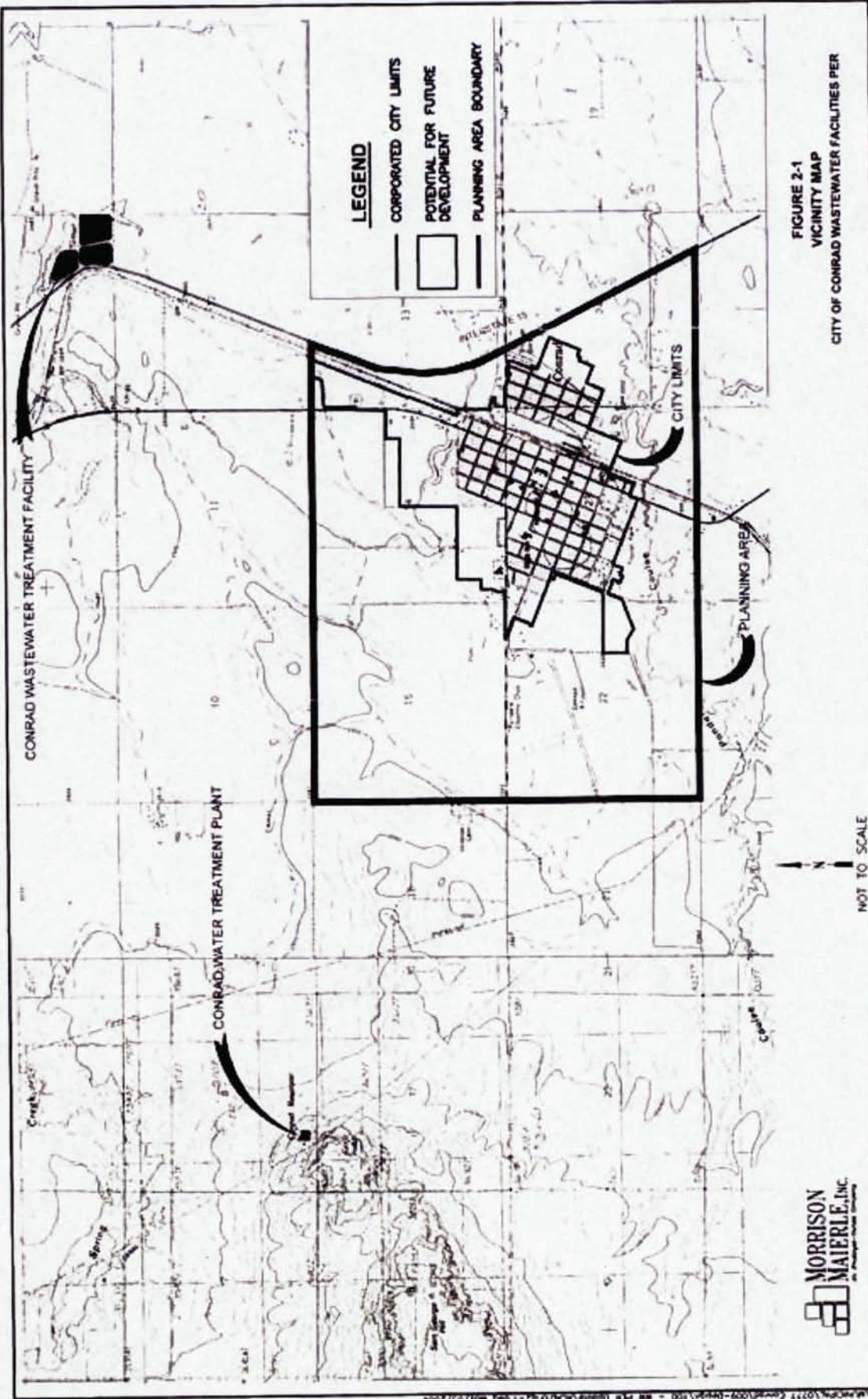


FIGURE 1  
LOCATION MAP



**FIGURE 2**  
**CITY OF CONRAD AND WWTF SITE**





**NOTES:**  
 1. WHERE COLOR SECTIONS ARE INDICATED, EXACT MAP GRID COORDINATES SHALL BE MAINTAINED TO THE MAXIMUM EXTENT POSSIBLE. ALL DISTANCES SHALL BE MEASURED AS SHOWN ON THIS MAP.  
**LEGEND:**  
 - HULL SITE  
 - PRIMARY APPLICATION SITE  
 - SECONDARY APPLICATION SITE

|   |  |  |  |
|---|--|--|--|
| <br>MORRISON MAIERLE, INC.<br>4000 WEST 10TH AVENUE, SUITE 100<br>DENVER, CO 80202<br>TEL: 303.733.1100<br>FAX: 303.733.1101<br>WWW.MORRISONMAIERLE.COM |  | COUNTY: JAC<br>TOWNSHIP: 4E<br>RANGE: 67E<br>SECTION: 36<br>DATE: 12/01/11 | PROJECT:<br>4777/0018<br>FIGURE:<br>FIG. 4 |
| CONRAD<br>CONRAD WWT/P UPGRADES - SLUDGE REMOVAL<br>LAND APPLICATION SITE DETAIL  |  | MONTANA  |  |

**FIGURE 4**  
**LAND APPLICATION SITES – DETAIL MAP 1 OF 2**

