



Montana Department of
ENVIRONMENTAL QUALITY

"Healthy environment, healthy people"

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.mt.gov

February 15, 2013

Don Jensen, Mayor
City of Plentywood
PO Box 1
Plentywood, MT 59254

RE: Wastewater Improvements
WPCSRF - C302233
Plentywood, Montana

Dear Mayor Jensen:

Enclosed is a copy of the Finding of No Significant Impact (FONSI) and Environmental Assessment (EA) for the Phase 1 Wastewater Improvements Project. **Please print the FONSI letter in one publication of your local paper under legal advertising and return the Proof of Advertising.** You do not have to print the EA, just have it available for public review should there be interest. We recommend you advertise this as soon as possible to allow for a 30-day comment period. **The FONSI and EA will be placed on our website for public review at <http://www.deq.mt.gov/ea.mcp.x>.**

If you have any questions, please do not hesitate to contact me at (406) 444-6776.

Sincerely,

Mike Abrahamson, P.E.
Environmental Engineer
Technical & Financial Assistance bureau

Enclosures

Cc: Brian Milne, P.E., Interstate Engineering (via email)



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February 15, 2013

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	City of Plentywood Phase 1 Wastewater System Improvements
Location	Plentywood, Montana
Project Number	WPCSRF Project # C302233
Total Cost	\$2,597,340

Based on findings in the 2012 Phase 1 - Wastewater System Improvements Preliminary Engineering Report, the city has identified the need for wastewater collection system improvements and to remove sludge from the treatment cells. Video inspection of the collection system has shown that several of the mains throughout the city contain an excessive build-up of sludge, sands, gravel, roots and grease associated with structural deficiencies such as cracks, separated joints, sagging pipes and sewers with inadequate slopes. These deficiencies have led to above average cleaning activities to prevent sewage blockages and backups in the collection system, and allows for the exfiltration of untreated wastewater. In addition, sludge has never been removed from the existing wastewater treatment facility, and depths in the existing wastewater treatment system are nearing the maximum storage capacity. Excessive sludge build-up is utilizing treatment capacity and likely degrading the quality of the effluent that is discharged from the system to Big Muddy Creek and may lead to additional permit violations.

To address structural problems in the collection system, the city will replace approximately 9,000 linear feet of clay tile pipe and 42 manholes. The city will consider traditional open-cut and pipe bursting technologies to correct the structural deficiencies depending upon whichever method is best suited to correct the specific deficiency (i.e., separated joints, alignment issues, slope issues, etc.) and is most cost effective. Sludge will be removed from the lagoons using a smooth bucket, a front end loader, or a paddle wheel scraper. The sludge will be land applied to agricultural land where it will be tilled or disked into the field. Sludge disposal will occur in accordance with Federal 40 CFR Part 503 sludge disposal regulations.

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

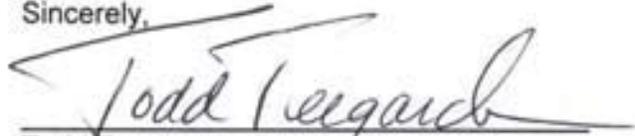
impacts in more detail, is available for public scrutiny on the DEQ web site (<http://www.deq.mt.gov/ea.mcpx>) and at the following locations:

Mike Abrahamson, P.E.
Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, MT 59620-09011
mabrahamson@mt.gov

Don Jensen, Mayor
City of Plentywood
P.O. Box 1
Plentywood, MT 59254

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,

A handwritten signature in black ink, reading "Todd Teegarden". The signature is written in a cursive style with a long horizontal stroke extending to the left.

Todd Teegarden, Bureau Chief
Technical and Financial Assistance Bureau

CITY OF PLENTYWOOD
PHASE 1 WASTEWATER SYSTEM IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

I. COVER SHEET

A. PROJECT IDENTIFICATION

Applicant: City of Plentywood
Address: 205 W. 1st Avenue
P.O. Box 1
Plentywood, MT 59254
Project Number: WPCSRF Project # C302233

B. CONTACT PERSON

Name: Don Jensen, Mayor
Address: P.O. Box 1
Plentywood, MT 59254
Telephone: (406) 765-1700

C. ABSTRACT

The City of Plentywood, through its 2012 Phase 1 - Wastewater System Improvements Preliminary Engineering Report (PER), and 2012 Wastewater System PER Amendment, has identified the need for wastewater collection system improvements, and to remove sludge from the treatment cells. The city's original collection system, constructed in the 1960s and 1970s, consists primarily of clay tile piping. Video inspection of the collection system has shown that several of the mains throughout the city contain an excessive build-up of sludge, sands, gravel, roots and grease associated with structural deficiencies such as cracks, separated joints, sagging pipes and sewers with inadequate slopes. These deficiencies have led to above average cleaning activities to prevent sewage blockages and backups in the collection system, and allows for the exfiltration of untreated wastewater. In addition, sludge has never been removed from the existing wastewater treatment facility (built in 1955) and depths in the existing wastewater treatment system are nearing the maximum storage capacity. Excessive sludge build-up utilizes treatment capacity and is likely degrading the quality of the effluent that is discharged from the system to Big Muddy Creek, and may lead to additional permit violations. Not only is sludge removal needed to restore sludge storage capacity, it will also temporarily increase the hydraulic storage capacity of the lagoons allowing the city to better accommodate sewer flows from the recent population increase associated with oil development in the region. Sludge removal is also necessary to improve constructability of the phase

2 improvements, which are expected to occur in 2014-2015. Phase 2 improvements will address expansion of the existing treatment system to accommodate long-term growth in the community.

To address deficiencies in the wastewater collection system, the city will replace approximately 9,000 linear feet of clay tile pipe and 42 manholes. The city will consider traditional open-cut and pipe bursting technologies to correct the structural deficiencies depending upon whichever method is best suited to correct the specific deficiency (i.e., separated joints, alignment issues, slope issues, etc.) and is most cost effective. Approximately 96,000 cubic yards of sludge will be removed from the lagoons using a smooth bucket, a front end loader, or a paddle wheel scraper. The sludge will be land applied to agricultural land where it will be tilled or disked into the field within 6 hours. Sludge disposal will occur in accordance with Federal 40 CFR Part 503 sludge disposal regulations.

The improvements including administration, engineering, and construction are estimated to cost approximately \$2,597,340. It is anticipated that the project will be funded through a low interest loan (3.00%) obtained from the State Revolving Fund (SRF) loan program and local funds.

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, growth, and sludge disposal were also assessed. No significant long-term environmental impacts were identified.

Under Montana law, (75-6-112, MCA), no person may construct, extend, or use a public sewage system until the DEQ has reviewed and approved the plans and specifications for the project. Under the Montana Water Pollution Control State Revolving Fund Act, the DEQ may loan money to municipalities for construction of public sewage systems.

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

D. COMMENT PERIOD

Thirty (30) calendar days

II. PURPOSE OF AND NEED FOR ACTION

The City of Plentywood is served by a central gravity collection system, a lift station located in the southeastern corner of the city on Douglas Avenue, and a two-cell facultative lagoon system with seasonal discharge to Big Muddy Creek. The city's collection system, constructed primarily in the 1960s and 1970s, contains approximately

65,000 linear feet of 8-inch diameter piping, with nearly three-fourths of it being clay tile piping. The remainder of the 8-inch piping is PVC and is located primarily on the edges of town in areas with newer development or in those areas of town that have undergone pipe repairs. Video inspection of the collection system has shown that many of the mains throughout the city contain an excessive build-up of sludge, sands, gravel, roots and grease associated with structural deficiencies such as cracks, separated joints, sagging pipes and sewers with inadequate slopes. These deficiencies have led to above average cleaning activities to remove roots, solids and grease build-up from the sewers preventing sewage blockages and backups in the collection system. The first cell of the treatment lagoons was constructed in 1955, with the second cell added in 1967. Sludge has never been removed from the lagoons since they were built and sludge depths are nearing the maximum storage capacity of the lagoons. Excessive sludge build-up utilizes treatment capacity and is likely degrading the quality of the effluent that is discharged from the system to Big Muddy Creek, and may lead to additional permit violations. Not only is sludge removal needed to restore sludge storage capacity, it will also temporarily increase the hydraulic storage capacity of the lagoons allowing the city to better accommodate sewer flows from the recent population increase associated with oil development in the region. Sludge removal is also necessary to improve constructability of the phase 2 improvements which are expected to occur in 2014-2015. Phase 2 improvements will address expansion of the existing treatment system to accommodate long-term growth in the community.

To address collection system deficiencies, the city proposes to replace approximately 9,000 linear feet of clay tile pipe and replace 42 manholes. The city will consider traditional open-cut (i.e., trenching) and pipe bursting (i.e., trenchless) technologies to correct the structural deficiencies, depending upon whichever method is best suited to correct the specific deficiency (i.e., separated joints, alignment issues, slope issues, etc.) and is most cost effective. To improve sludge storage capacity, and in preparation of the phase 2 wastewater treatment improvements, sludge will be removed from the lagoons using a smooth bucket, a front end loader, or a paddle wheel scraper, and disposed of in accordance with Federal 40 CFR Part 503 sludge disposal regulations. The sludge will be land applied to agricultural land where it will be tilled or disked into the field.

III. ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. Four alternatives for addressing Plentywood's wastewater collection system needs were evaluated. These include:

- C-1. No Action
- C-2. Open-Cut Pipe Replacement
- C-3. Pipe Bursting Pipe Replacement
- C-4. Cured In Place Pipe (CIPP) Rehabilitation

C-1. **NO ACTION** - The no-action alternative would involve making no improvements to the existing wastewater collection system. The structural deficiencies noted through video inspections will continue to result in an excessive build-up of sand, gravel, roots, and grease in the collection system and will require city personnel to conduct frequent cleanings to

prevent sewer blockages and backups. The no-action alternative was not considered to be a viable option and was not given further consideration.

- C-2. **OPEN-CUT PIPE REPLACEMENT** - This alternative involves excavating a trench over the existing sewer main, removing the old pipe, and installing a new sewer main. This project would include replacement of approximately 9,000 linear feet of existing 8-inch clay tile pipe with new 8-inch PVC sewer pipe. In addition 42 manholes will be replaced. The new piping will result in fewer and tighter joints and where possible pipe slopes will be increased to improve sewer flow velocities to prevent the accumulation of solids reducing sewer cleaning activities. Open-cut replacement will require street closures and surface restoration. This alternative provides a viable means for correcting the collection system deficiencies and was given further consideration.
- C-3. **PIPE BURSTING PIPE REPLACEMENT** – This alternative is a trenchless technology for replacing sewer mains. This alternative utilizes a pipe bursting tool that is pulled through the existing pipe. The bursting tool breaks the existing pipe by applying radial pressure which fragments the pipe and compresses the broken pieces into the surrounding soil as it progresses. The bursting head is followed by an expansion head which further pushes the fragmented pipe into the surrounding soil and bedding to a diameter that allows the insertion of the fusible PVC pipe behind it. Sewer service connections must be reestablished through excavation. In comparison to open-cut pipe replacement, the pipe bursting method lessens the time streets need to be shut down and does not require as much street reconstruction. This is a viable alternative for correcting those areas where disjointed piping and sags are not severe and will be given further consideration.
- C-4. **CURED IN PLACE PIPE (CIPP) REHABILITATION** - This alternative is a trenchless technology for rehabilitating sewer mains. With this alternative the existing pipe is cleaned and a resin-impregnated flexible liner is inserted into the existing pipe by use of hydrostatic head. Through the use of pressure, the liner is expanded to form a tight fit in the existing pipe. The resin is then cured by circulating hot water or steam within the tube resulting in a hard, seamless, structurally sound pipe inside the old pipe. Once the new pipe has cured, service lines are reestablished internally through use of a remote cutting device which travels down the main to the previously recorded service locations. CIPP can be installed with minimal disruptions to traffic flow and does not require street reconstruction. However, since the CIPP is installed within the existing sewer main, it cannot correct sags or inadequate pipe slopes and cannot correct disjointed pipes. Therefore, CIPP rehabilitation was not considered a viable alternative and will not be given further consideration.

B. Two alternatives for sludge removal and disposal were evaluated. These included:

S-1. NO ACTION

S-2. LAND APPLICATION OF SLUDGE

S-1. NO ACTION – This alternative would leave the sludge in place until treatment system improvements were made in phase 2. With sludge depths nearing the maximum storage capacity, effluent quality will likely be diminished and may lead to additional permit violations. Furthermore, the hydraulic storage capacity of the existing lagoons will be lessened which would compromise construction of the phase 2 improvements. Based on these concerns, the no action alternative is not a viable option and was not given further consideration.

S-2. LAND APPLICATION OF SLUDGE - This alternative would involve the removal of sludge from the treatment ponds and disposal through land application on agricultural lands in accordance with Federal 40 CFR Part 503 sludge disposal regulations. Approximately 96,000 cubic yards of sludge will be removed from the lagoons using a smooth bucket, a front end loader, or a paddle wheel scrapper and then hauled to the disposal site using an end dump or belly dump truck. The trucks will be required to have water-tight containers to prevent the release of any sludge in route to the disposal site. To protect surface waters, sludge application will not occur on slopes greater than 6 percent or within 33 feet (10 meters) of the water's edge. After spreading the sludge, it will be tilled or disked into the soil within 6 hours of application. The city has identified several potential disposal sites in close proximity of the lagoon site along Mann Road and Welliver Road. The city is in the process of securing letters of intent for sludge disposal from the landowners.

C. BASIS OF SELECTION OF PREFERRED ALTERNATIVE

Depending on the condition of the existing sewer pipe, replacement of the sewer pipe using open-cut or pipe bursting are both viable options. During project design, the city and engineer will utilize video inspections to determine which method is best suited to correct the specific deficiency (i.e., separated joints, alignment issues, slope issues, etc.), and is most cost effective. Thus, the proposed phase 1 project will utilize both Alternatives C-2 and C-3 for sewer main improvements. In preparation of phase 2 sewer improvements (treatment system expansion), and to increase sludge storage capacity, and temporarily increase the hydraulic storage capacity, the city will implement Alternative S-2 as well.

D. PHASE 1 PROJECT COST

The phase 1 project includes replacement of approximately 9,000 lineal feet of 8-inch clay tile pipe, the installation of 42 new manholes and the removal of 96,000 cubic yards of sludge from the treatment lagoons. Table 1 provides a summary of the project costs of the alternatives considered.

TABLE 1 – PHASE 1 ESTIMATED CAPITAL COSTS

Item	Estimated Cost
Collection System Improvements	\$1,232,000
Sludge Removal and Disposal	\$ 847,000
Total Capital Cost	\$2,079,000

The total project cost including administration, legal, engineering and construction for the recommended alternatives is \$2,597,340. The city will take out a \$2,444,000 State Revolving Fund (SRF) loan and utilize \$153,340 of city funds to complete the project. Of the SRF funds provided, \$300,000 of the loan will be forgiven, with the remaining \$2,144,000 having an interest rate of 3% for 20 years.

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 1.48% of the monthly median household income and therefore may impose a slight to moderate economic hardship on household income.

**Table 2
PROJECT AFFORDABILITY**

Monthly sewer rate ¹	\$37.00
Monthly median household income (mMHI) ²	\$2,503.08
User rate as a percentage of mMHI	1.48 %

¹ Class 1 (¾ inch water service) rate adopted by City of Plentywood on May 7, 2012.

² Based on 2000 census data

IV. AFFECTED ENVIRONMENT

A. PLANNING AREA / MAPS

The City of Plentywood is an incorporated community in Sheridan County located at the junction of state highways 5 and 16 in the northeastern corner of Montana. Plentywood lies 24 miles west of the North Dakota border and 18 miles south of the Canadian border (See Figure 1).

The wastewater collection system is located primarily within the alley ways and generally flows in a south-southwesterly direction. Approximately 1/3 of the city is served by lift station located in the southeastern corner of the city on Douglas Avenue. The treatment facility, a two-cell facultative lagoon, is located just southwest of the city. The planning area includes the incorporated boundary of the city and adjacent areas outside the city limits where future growth is expected. The planning area and phase 1 sewer main replacement project are shown in Figure 2 and the potential sludge disposal sites are shown in Figure 3. It is anticipated that the collection system improvements will take approximately 2 months to construct and the sludge disposal project will take approximately 3 months to complete. Improvements to the collection system are scheduled to

begin in late May or early June 2013 with the sludge removal/disposal project taking place in late spring/early summer of 2014.

B. FLOW PROJECTIONS

The current average flow to the wastewater treatment facility is estimated to be approximately 318,000 gallons per day. This flow rate results in a net wastewater flow of 154 gallons per capita per day (gpcd) which is above the expected 100 gpcd typically observed in collection systems with minimal inflow and infiltration (I/I). Analysis of the flow monitoring data has indicated that a majority of the elevated flow is likely attributed to discharges from the water treatment plant's reclamation tank and from a car and truck wash. Removing the flow from these two sources reduces the per capita wastewater flow rate to 110 gpd. This is still high in comparison to communities that do not experience excessive I/I, but within EPA's "trigger" value of 120 gpcd, which is considered to include an acceptable level of I/I based on economic considerations. Since the proposed improvements will not remove any extraneous flows from the collection system, sewer flow rates are not expected to decrease from the current levels as a result of this project. The system operators have not reported any problems regarding hydraulic capacity, therefore the sewer mains appear to be adequately sized to handle current flows.

C. NATURAL FEATURES

Within the city limits, land use is predominantly residential with a variety of commercial business establishments located throughout the community. Land use outside the city limits is primarily used for agricultural activities consisting of dry land farming, irrigated hay, and some pasture. The topography of Plentywood is of low relief. The elevation ranges from 2000 to 2067 and generally slopes towards Big Muddy Creek on the southwest edge of town. The topography enables approximately 2/3 of the community to utilize a conventional gravity system to transport wastewater to the treatment system without the use of a lift station. Big Muddy Creek is a perennial stream which converges with the Missouri River approximately 50 miles south of Plentywood.

Soils in the Plentywood area are well-drained and consist of deposits of loam, and clay loam near the surface, with loose very gravelly sand in the underlying material. The soils also contain areas of gravelly loam and silty clay loam. These soils are alluvium (river deposits) and glacial till. Permeability is moderate at the surface and runoff is slow to medium. The City of Plentywood wastewater treatment plant discharges to Big Muddy Creek, a tributary of the Missouri River. Big Muddy Creek has been classified as a C-3 water body by the State of Montana. Waters classified as C-3 are to be maintained suitable for bathing, swimming, and recreation, and growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl, and furbearers. The quality of these waters is naturally marginal for drinking, culinary, and food processing purposes, agriculture, and industrial water supply.

In general, groundwater depths in the Plentywood area are 20 feet or deeper

below the surface. The depth of the collections system is approximately seven feet throughout the system. City operators have indicated that there are no signs of elevated groundwater when the mains are exposed for replacement or repairs. The depth to groundwater tends to be slightly less near Boxelder Creek, which flows through the eastside of town.

The climate in the area is classified as semi-arid. Plentywood's temperature ranges from an average daytime high of 22.8 °F in January to 84 °F in July and August. The average annual precipitation rate is 12.88 inches per year with a majority of that falling from May through July. The average evaporation rate in the area is 39.3 inches per year. Prevailing winds are from the northwest.

V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Land Use – The proposed project will not alter current land use. Replacement of the existing sewer lines will occur within existing right of ways within city limits. Land use outside the city limits is primarily used for agricultural activities. Sludge will be applied to private property located southwest of the community. Some of this land is characterized as prime farmland, if irrigated. The application of sludge will only enhance the soils making it more productive. None of proposed land application sites will be taken out of crop production as a result of this project.
2. Floodplains and Wetlands – No FEMA maps exist for the Plentywood area. None of the proposed improvements will result in structures that would impeded the flow of water should a flood occur. Impacts to wetlands are not anticipated, but should a wetland be encountered during design or construction, appropriate permits, approvals, and mitigation will be required. The Department of Natural Resources (floodplains) and Army Corps of Engineers (wetlands) have been notified of this project and asked to reply with any concerns. See *Section X Agencies Consulted* of this report for a summary of their comments.
3. Cultural Resources – No impacts to cultural resources are anticipated. All construction activity will occur on previously disturbed ground. The Cultural Resources Department Director of the Fort Peck Reservation had no comment. The State Historical Preservation Office was contacted regarding the proposed improvements and their comments are summarized in *Section X Agencies Consulted* of this report.
4. Fish and Wildlife – The Montana Natural Heritage Program indicated that Sprague's Pipit, Baird's Sparrow, Grasshopper Sparrow, Le Conte's Sparrow, Nelson's Sparrow, Chestnut-collared Longspur, Bobolink, and Smooth Greensnake were listed as animal species of concern in the Plentywood area. The project will not affect any critical wildlife habitats, nor will any known endangered species be affected. Sewer line improvements will occur within existing right-of-ways within the city limits

and within previously disturbed areas. Sludge will be applied to agricultural land that is already in production. The Montana Department of Fish, Wildlife, and Parks and U.S. Fish and Wildlife Services have been notified of this project and asked to reply with any concerns. See *Section X Agencies Consulted* of this report for a summary of their comments.

5. Water Quality – The sewer collection main improvements will not impact surface water and will only positively impact groundwater in that the exfiltration of untreated wastewater from the disjointed pipes will be eliminated. Sludge will be applied to agricultural lands in accordance with the Federal 40 CFR 503 sludge disposal regulations. To protect surface waters, sludge application will not occur on slopes greater than 6 percent or within 33 feet (10 meters) of the water's edge. After spreading the sludge it will be tilled or disked into the soil within 6 hours of application. The implementation of best management practices (BMPs) will protect any nearby surface streams from storm water runoff during construction.
6. Air Quality - Short-term negative impacts on air quality are expected to occur during construction from heavy equipment in the form of dust and exhaust fumes associated with collection system replacement and sludge removal/disposal. Proper construction practices will minimize this problem. Project specifications will require dust control. No long term air quality effects would result from any of this work.
7. Public Health - Public health will not be negatively affected by the proposed project. Reducing the exfiltration of sewage from the collection system will result in less potential for public health risks associated with groundwater contamination. In addition, removing sludge from the treatment lagoons will improve treatment system performance by increasing the existing lagoon's storage/treatment capacity.
8. Energy – No long-term energy impacts will occur as a result of the proposed project. The consumption of energy resources directly associated with construction of the recommended improvements is unavoidable but will be a short-term commitment.
9. Noise - Impacts from excessive noise levels during the construction activities may occur, but will be short-term. The construction period will be limited to normal daytime hours to avoid early morning or late evening construction disturbances. No significant long-term impacts from noise will occur.
10. Sludge Disposal – All sludge (biosolids) will be removed from the existing cells and land applied in accordance with Federal 40 CFR 503 sludge disposal regulations. The Part 503 regulations contain specific numerical limits and other requirements for heavy metals, pathogens, and vector attraction. Sludge will be removed from the lagoons using a smooth bucket, a front end loader, or a paddle wheel scrapper and then hauled to a disposal site using an end dump or belly dump truck. The trucks will be

required to have water-tight containers to prevent the release of any sludge in route to the disposal site located on private property. The city has identified several potential disposal sites in close proximity of the lagoon site along Mann Road and Welliver Road. The final sludge disposal plan must be submitted to the EPA and DEQ for review and approval.

11. Environmental Justice – Environmental Justice Executive Order 12898: The proposed project will be of equal benefit to all users of the Plentywood sanitary sewer system and will not result in disproportionately high or adverse human health or environmental effects on minority or low income populations. The amount charged to users is dependent on the size of the water service to the respective property. No disproportionate effects among any portion of the community would be expected.
12. Growth - Improvements to the wastewater collection system and sludge removal will be a positive feature for the community and will allow the city to manage its growth in a proactive manner and promote urbanization within its service area. While this project does not directly add treatment capacity, it will temporarily increase the hydraulic storage capacity allowing the city to better accommodate sewer flows from the recent population increase associated with oil development in the region. An environmental assessment for the Phase 2 improvements (expected to occur in 2014-2015) will address treatment capacity issues and associated long-term community growth.
13. Cumulative Effects - No significant secondary and/or cumulative impacts are anticipated with the proposed phase 1 improvements. The proposed improvements will temporarily create additional storage capacity which will help accommodate the community's recent growth surge associated with oil field development in the region. Secondary impacts linked to housing, commercial development, solid waste, transportation, utilities, air quality, water utilization, and possible loss of agricultural and rural lands may occur. These secondary impacts are uncertain at this time and therefore cannot be directly addressed in the EA. However, these impacts will need to be managed and minimized as much as possible through city policies and proper community planning. There are several existing city, county and state regulations already in place (i.e., zoning regulations, comprehensive planning, subdivision laws, etc.) that control the density and development of property with regards to water supply, sewage disposal, solid waste disposal, transportation, and storm drainage systems.

B. UNAVOIDABLE ADVERSE IMPACTS

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

VI. PUBLIC PARTICIPATION

Public meetings were held on 8/10/11; 8/22/11; 5/7/12; and 2/4/13 to discuss the wastewater system and necessary improvements. At these meetings the need for the project (i.e., collection system deficiencies, sludge accumulation, treatment improvements), associated costs, funding sources, and the impact to user rates were discussed. On 8/22/11 the city council approved the recommendations outlined in the Preliminary Engineer Report (PER) and on 5/7/12 a public hearing was held to discuss the sewer rate increase needed to fund the proposed improvements. A resolution approving and adopting the increased sewer rates was signed by the city council on 5/7/12. At the 2/4/13 council meeting the project engineer outlined the sewer collection system improvements and potential sludge disposal areas. No written or oral comments were received.

VII. AGENCY ACTION, APPLICABLE REGULATIONS AND PERMITTING AUTHORITIES

All proposed improvements will be designed to meet state standards in accordance with Circular DEQ-2 and will be constructed using standard construction methods. Best management practices will be implemented to minimize or eliminate pollutants during construction. No additional permits will be required from the State Revolving Fund (SRF) section of the DEQ for this project after the review and approval of the submitted plans and specifications. However, coverage under the storm water general discharge permit and groundwater dewatering discharge permit are required from the DEQ Water Protection Bureau, and if necessary will be obtained prior to the beginning of construction. A 124 Permit from the Department of Fish, Wildlife and Parks, a 404 Permit from the U.S. Corps of Engineers, and a 318 Authorization from the Department of Environment Quality will be required for any work that occurs in a streambed or wetland, and will be obtained, if necessary. An EPA Region 8 Biosolids General Permit (Category 3) for sewage sludge use/disposal will be obtained for this project.

VIII. RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS

EIS More Detailed EA No Further Analysis

Rationale for Recommendation: Through this EA, the DEQ has verified that none of the adverse impacts of the proposed City of Plentywood wastewater improvement 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. The EA is the appropriate level of analysis because none of the adverse effects of the impacts are significant

IX. 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. City of Plentywood Preliminary Engineering Report Wastewater System Improvements – Phase 1, Feb 2012, prepared by Interstate Engineering, Inc.

2. PER Amendment – Plentywood Wastewater System, November 2012, prepared by Interstate Engineering, Inc.
3. E-mail correspondence between the Montana Fish, Wildlife and Parks and Interstate Engineering, October 2010 and January 2013.
4. Uniform Application Form for Montana Public Facility Projects, April 2012, prepared by City of Plentywood.
5. Soil Survey of Sheridan County, Montana, June 1977, prepared by USDA Soil Conservation Service and US Department of the Interior Bureau of Indian Affairs.
6. Soil Data Mart website from the Department of Natural Resources Conservation Service, <http://soildatamart.nrcs.usda.gov/>

X. AGENCIES CONSULTED

The following agencies have been contacted in regard to the proposed construction of this project:

1. The U.S. Fish and Wildlife Service reviewed the proposed project on 2/2/10 and 9/4/12 and stated that wastewater treatment system upgrade activities that improve the quality of, or reduce the quantity of treated effluent reaching waters of the state are generally beneficial to fish, wildlife and aquatic habitat. They stated that the proposed improvements are unlikely to adversely affect fish and wildlife resources under the purview of the U.S. Fish and Wildlife Service.
2. The Montana Department of Natural Resources and Conservation (DNRC) reviewed the proposed project on 3/22/10 and 9/26/12 and stated that since neither the City of Plentywood nor Sheridan County participate in the National Flood Insurance Program, and there are no designated 100-year floodplain maps developed for the project area. Therefore the project will not have any impact on any designated 100-year floodplain and this project will be in compliance with the Floodplain Management Protection Act of 1973. They went on to state that this did not mean that there are no flood hazards at the proposed project sites, only that the hazards have not been identified at this time. They recommended that any new construction be evaluated to make sure that any new structures will not increase existing flood hazards. In general this means that 100-year flood flows upstream from the structures are not significantly elevated.

The Sheridan County Planner reviewed the proposed project on 4/2/10 and 9/10/12 and stated that Sheridan County does not participate in the floodplain program and does not have delineated floodplain maps. They had no additional comments.

3. The Montana Historical Society's State Historic Preservation Office (SHPO) reviewed the proposed project on 1/25/2010 and 9/21/12. According to their records, there have been a few previously recorded sites and a few cultural resource inventories done within the designated search locales. Because of previous ground disturbances, SHPO stated that there was a low likelihood that cultural properties would be impacted and, as such, felt a cultural resource inventory is unwarranted at this time. However if cultural materials are

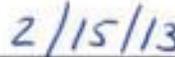
inadvertently discovered during this project, their office must be contacted and the site investigated. If any structure over 50 years old is to be altered, it is recommended that they be recorded and a determination of their eligibility for listing on the National Register of Historic Places be made.

4. The U.S. Department of the Army Corps of Engineers (USCOE) reviewed the proposed project on 2/8/10 and 10/4/12. The USCOE is responsible for administering Section 404 of the Clean Water Act, which regulates the excavation or placement of dredged or fill material below the ordinary high water mark of our nation's rivers, streams, lakes or in wetlands. The USCOE indicated that based on the information they reviewed it appears that the project might impact waterways of the U.S. and stated that if fill will be placed either temporarily or permanently in a water of the United States, a Department of Army permit will be required for the project. A permit application must be submitted if the final design requires the placement of fill material in any jurisdictional waters.
5. The Montana Department of Fish, Wildlife and Parks (FWP) reviewed the proposed project on 1/7/13. Their primary concern was the protection of surface water from the land application of sludge. Additional correspondence between the Interstate Engineering and FWP addressed how sludge disposal was going to be completed and the guidelines the city will follow. The project engineer stated that Federal 40 CFR Part 503 sludge disposal regulations will govern the land application of sludge and that the design criteria will follow both the EPA and DEQ regulations for this project. FWP indicated that they have no further comments at this time until more detailed plans are developed.

EA Prepared by:

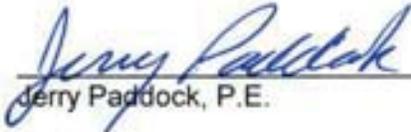


Mike Abrahamson, P.E.



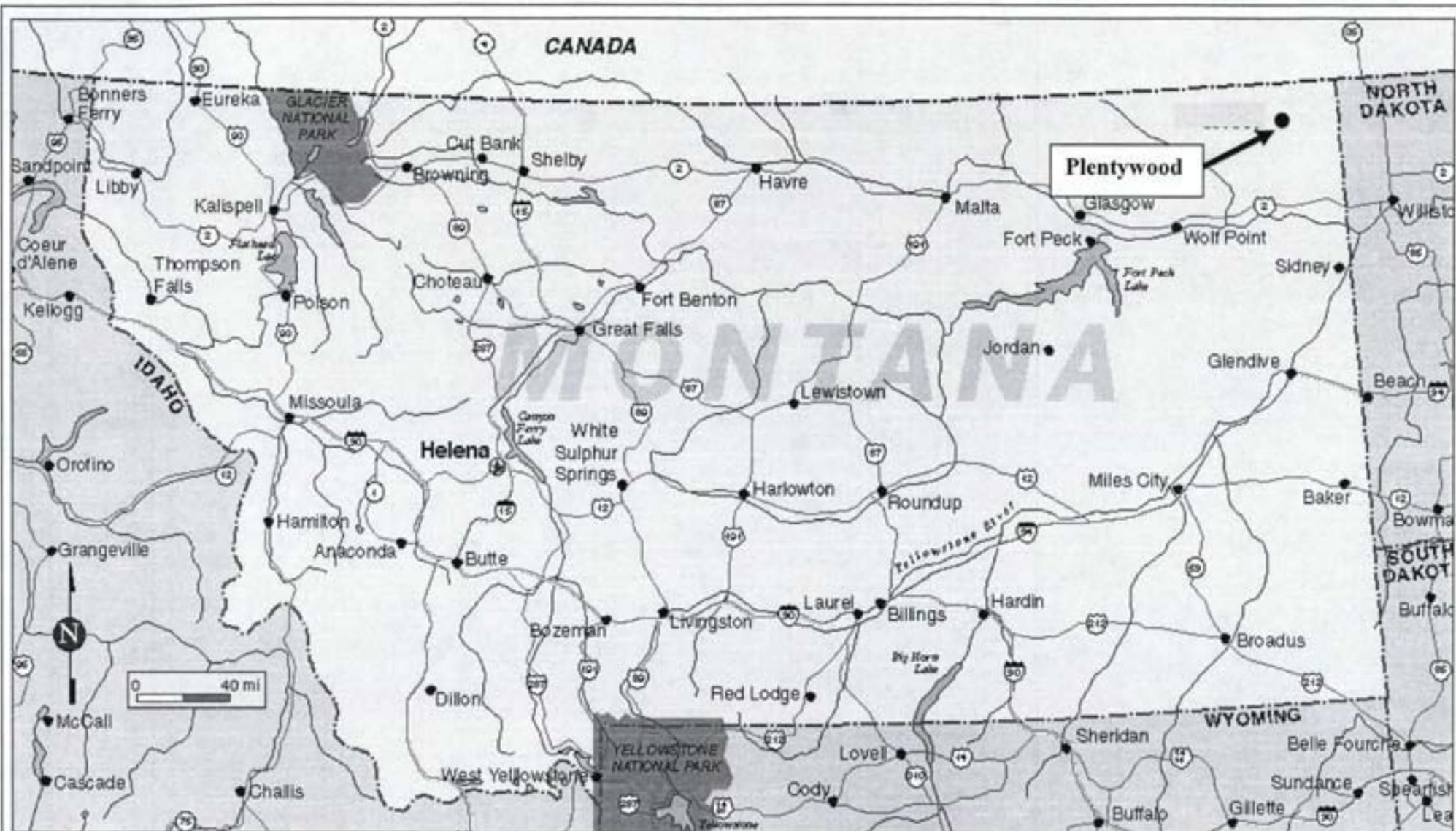
Date

EA Reviewed by:


Jerry Paddock, P.E.



Date



Montana Department of
ENVIRONMENTAL QUALITY

Figure 1. Site Location Map – Plentywood, MT

