



**FINDING OF NO SIGNIFICANT IMPACT
FOR
CENTRAL MONTANA REGIONAL WATER AUTHORITY
MUSSELHELL-JUDITH RURAL WATER SYSTEM PHASE 1 PROJECT**

TO: ALL INTERESTED PERSONS

Date: February 10, 2019
Action: Drinking Water System Installation Project
Location of Project: Wheatland and Judith Basin Counties, Montana
DEQ/DWSRF Funding: To be Determined
Total Project Cost: Approximately \$24,100,000 (in 2016 dollars)

An environmental assessment (EA) has been prepared by the Montana Department of Environmental Quality (DEQ) regarding construction of Phase 1 of the Musselshell-Judith Rural Water System (MJRWS) in Wheatland and Judith Basin Counties by the Central Montana Regional Water Authority (CMRWA).

The proposed action consists of the installation of approximately 24 miles of buried pipelines 8-inch and 16-inch in diameter, a disinfection building, and a partially buried 550,000-gallon ground level storage tank. The project will also include all associated valves, fitting, meters, controls, appurtenances and surface repair. The pipeline will extend from the Ubet wellfield northwest of Judith Gap to the existing Harlowton tank in the town of Harlowton, Montana and will be installed within or immediately adjacent to a county right-of-way along Old Gap Road or in or near utility easements on private property. This project is Phase 1 of the MJRWS and is intended to bring high quality drinking water to serve the town of Harlowton as well as rural residents along the pipeline route.

Based on the EA, the project is not expected to have any significant adverse impacts upon terrestrial and aquatic life or habitat, including endangered species, water quality or quantity, air quality, geological features, cultural or historical features, or social quality.

The DEQ utilized the following references in completing its EA for this project: (1) Musselshell-Judith Rural Water System – Central Montana Regional Water System Environmental Assessment dated July 2014 and prepared by Tetra Tech; (2) a Feasibility Report dated November 2014 and prepared by Great West Engineering; (3) a Design Report for Phase 1 of the MJRWS Project dated June 2019 and prepared by Great West Engineering; and (4) a review of potential contaminant sources for Phase 1 of the project completed by the source water protection section of MDEQ. In addition to these references, thirty-two entities that included cities, towns, and state and federal agencies were contacted regarding the proposed construction of the MJRWS. Response letters were received from MDEQ, MDT, SHPO, USACE, the City of Lewistown, Big Spring Creek Watershed Council, and Fergus Conservation District. These references are available for review upon request by contacting:

Sandie Koenig
Department of Environmental Quality
P.O. Box 200901
Helena, MT 59620-0901
Phone (406) 444-6770
Email: sandie.koenig@mt.gov

Or:

Monty Sealey
Central Montana Regional Water Authority
34 3rd Ave. West
Roundup, MT 59072
(406) 323-6060
Email: cmrccd@midrivers.com

Comments on this finding or on the EA may be submitted to DEQ at the above address. Comments must be postmarked no later than 30 days after the date of publication of this FONSI in the newspaper. After evaluating substantive comments received, DEQ will revise the EA or determine if an Environmental Impact Statement is necessary. Otherwise, this finding of no significant impact will stand 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.

Signed,


Mark Smith, DWSRF Supervisor
Engineering Bureau

c: file

CENTRAL MONTANA REGIONAL WATER AUTHORITY MUSSELHELL JUDITH
RURAL WATER SYSTEM PHASE 1 PROJECT

ENVIRONMENTAL ASSESSMENT

I. COVER SHEET

A. PROJECT IDENTIFICATION

Applicant: Central Montana Regional Water Authority
Address: 34 3rd Ave. West
Roundup, MT 59072
Project Number: EQ No. 20-1679

B. CONTACT PERSON

Name: Monty Sealey, Project Administrator
Central Montana Regional Water Authority
Address: 34 3rd Ave. West
Roundup, MT 59072
Telephone: (406) 323-6060

C. ABSTRACT

The Central Montana Regional Water Authority (CMRWA) is a public, non-profit organization consisting of a coalition of cities and towns in central Montana who have a long legacy of inadequate drinking water supplies. The CMRWA was legally created in 2005 as a public water authority in the state of Montana. The CMRWA is governed by a board of directors with members from the various communities to be served by the water system. The goal of the Musselshell-Judith Rural Water System (MJRWS) is to provide a reliable and adequate quantity of high quality drinking water for the member communities. The project consists of developing groundwater wells within the Madison Aquifer to supply water to each of the current seven-member communities (Hobson, Judith Gap, Harlowton, Lavina, Broadview, Roundup, and Melstone), as well as smaller communities and local users along the pipeline route.

An Environmental Assessment (EA) was published in July 2014 for all phases of this project as part of an effort to obtain approval from the Bureau of Reclamation to pursue federal authorization of the project. This EA focuses on Phase 1 of the project which includes the Ubet wellfield site, the Judith Gap Tank and the pipeline to Harlowton, MT. Communities in central Montana face challenges obtaining reliable, quality drinking water. Phase 1 of the project will specifically address water quality issues faced by residents in the town of Harlowton with wells that have high concentrations of total dissolved solids and sulfates that make water treatment challenging. In addition, rural customers along the route that have

water quality and/or quantity issues can also benefit from the proposed project.

The primary funding for design and construction of the MJRWS is expected to come from the federal government, the state of Montana, and the DEQ Drinking Water State Revolving Fund (DWSRF) loan program. Environmentally sensitive characteristics such as wetlands, floodplains, and threatened or endangered species are not expected to be adversely impacted as a consequence of the proposed project. No significant long-term environmental impacts were identified during the preparation of this document.

The DEQ Engineering Bureau has prepared this EA to satisfy the requirements of the National Environmental Policy Act (NEPA) and the Montana Environmental Policy Act (MEPA).

D. COMMENT PERIOD

Thirty calendar days.

II. PURPOSE AND NEED FOR ACTION

As described in the July 2014 EA (Tetra Tech, 2014), the purpose of this project is to provide a consistent and reliable source of high quality water to the communities in central Montana. Phase 1 will serve the town of Harlowton as well as rural residents between the wellfield site and the town. Harlowton's wells contain high concentrations of total dissolved solids (TDS) and sulfates with concentrations in two of the three wells that are at or exceed the secondary maximum contaminant limit (SMCL) established by the Environmental Protection Agency (EPA). In addition, one of the town's wells has been shown to produce water with high concentrations of black silt. Another well is threatened by a leaking underground storage tank. The third well had to be taken offline for a period of time in 2011 due to surface water flooding at the well site. The proposed Phase 1 project will provide Harlowton and the rural residents with a reliable, high quality source of drinking water over the 50-year planning period.

III. CONSIDERED ALTERNATIVES

The alternatives for addressing Phase 1 of the Musselshell-Judith Rural Water System (MJRWS) needs include:

A. NO ACTION

Under the no action alternative, the federal government would not provide funding for the MJRWS and it is likely that the water pipeline would not be constructed because the cost would render the project infeasible. The residents served by Phase 1 including the town of Harlowton would continue to receive water of inconsistent quality and quantity.

B. ACTIONS CONSIDERED BUT NOT PURSUED

Surface water source:

- Available surface water sources (streams, rivers, building dams) would require extensive treatment and would be cost-prohibitive. In addition, surface water within the Musselshell basin is generally closed for new development because there are no available water rights.

Centralized treatment for existing supplies:

- There is not an existing source of supply from a member community that can meet future demand for the regional water system.

Multiple water treatment facilities:

- The cost to treat existing supplies in multiple member communities would be cost-prohibitive. In addition, meeting future water demand would still be an issue if existing sources were used.

C. PROPOSED ACTION

The proposed water system for Phase 1 would provide water service for drinking, household, livestock, and yard irrigation (not crop irrigation) to the residents of Harlowton and individual rural users who are located along the pipeline route that elect to receive the service. The proposed infrastructure for Phase 1 includes:

- A new disinfection facility at the wellfield that will use chlorine gas
- A new 550,000-gallon water storage tank
- Approximately 24 miles of new transmission mains consisting of PVC and HDPE connecting the wells to the town of Harlowton
- Connecting rural customers to the new transmission main along the route to Harlowton

The new water supply well (Well #3) was drilled and developed prior to Phase 1.

D. TOTAL ESTIMATED COSTS

The total estimated cost of the proposed Phase 1 project is approximately \$24.1M (in 2016 dollars). Financing for the entire project, including Phase 1, has not been finalized. It is anticipated that funding will include federal appropriations from Congress for 65 percent of the project cost, a state grant for 17.5 percent of the project cost, and a DWSRF loan for the remainder of the cost.

IV. AFFECTED ENVIRONMENT

A. PLANNING AREA

The planning area for Phase 1 of the MJRWS spans two counties beginning at the Ubet wellfield site and extending approximately 24 miles south to the existing Harlowton Tank in Harlowton, MT via a transmission main comprised of 8- and 16-inch PVC/HDPE pipe. The new Judith Gap tank, located southwest of the wellfield and approximately ¼ of a mile west of the transmission main, will float on the system to maintain adequate pressures and meet peak demands. Figure 1 shows the general location for infrastructure proposed in Phase 1 of the MJRWS project.

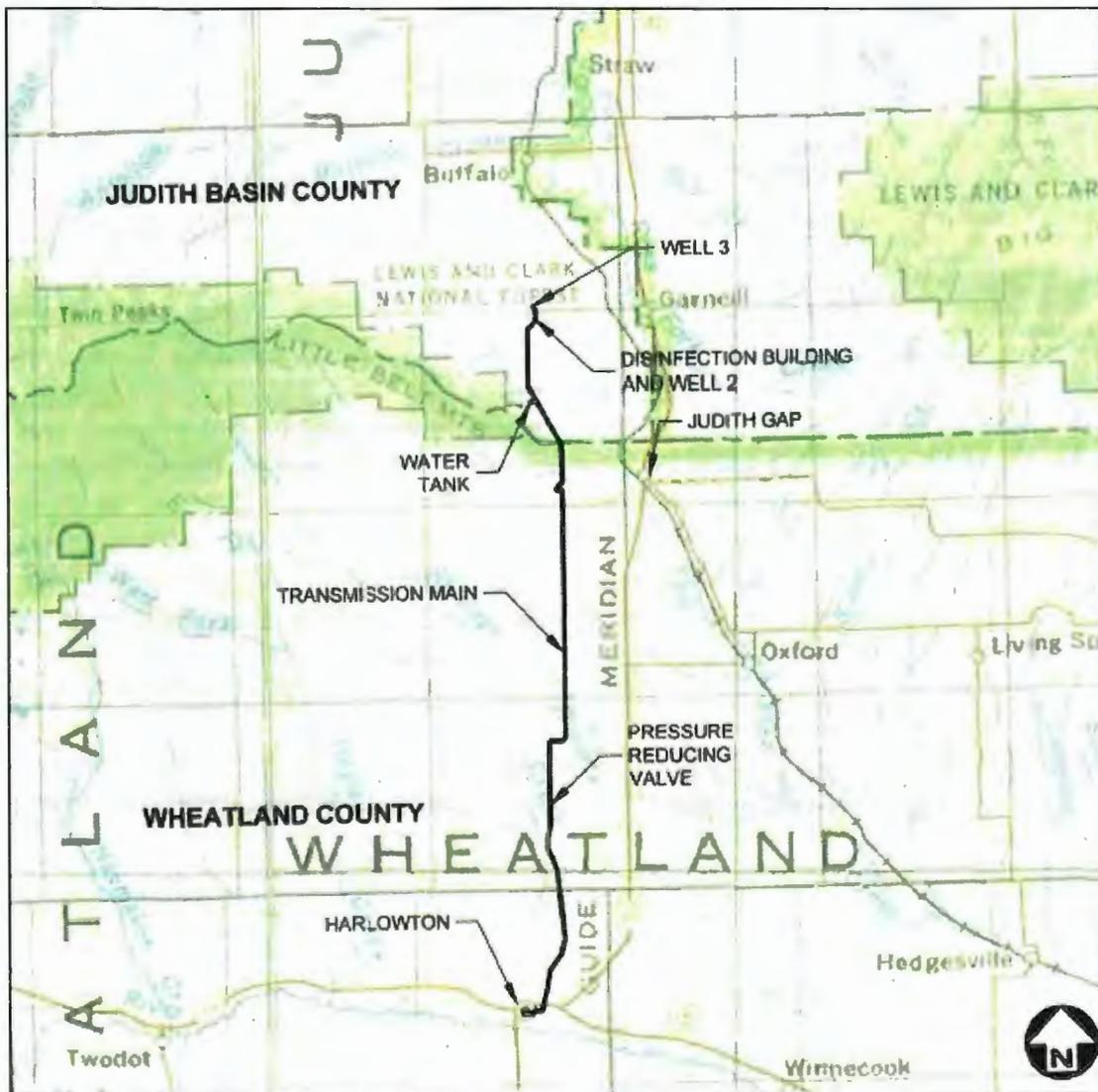


Figure 1. Location of infrastructure proposed for Phase 1 of the MJRWS

For Phase 1 of the MJRWS, county easements and private easements were obtained for the new building, tank, and transmission main.

B. POPULATION AND FLOW PROJECTIONS

The existing population estimated during planning for customers that will be served by Phase 1 (the town of Harlowton and rural areas of Wheatland County) was 1,123 persons and was based on the latest census data (2010 census). The annual growth rate over the life of the project (estimated at 50 years) for the area covered in Phase 1 is expected to be low (0.5 percent) and is based on past growth trends including previous census data. As such, the projected population for Phase 1 customers at buildout was expected to be 1,478 persons. However, the MJRWS Phase 1 Design Report (Great West Engineering, 2019) noted that fewer rural users have committed to the project than was originally assumed during planning and, as a result, the number of users expected at buildout is less than predicted.

For Phase 1, average day demand (ADD) at buildout is projected to be 145 gpm. ADD is based on the expected population at buildout (revised for less rural users) and the expected water usage of 153 gallons per capita per day (gpcd). This value differs from water usage data collected in 2013 which showed the average gallons per capita per day for member communities was 167 gpcd. When calculating ADD, the Feasibility Report (2014) justified the use of the lower water usage number based on factors that occurred after 2013 data were collected such as: the town of Harlowton installing customer meters and implementing a tiered rate structure to encourage water conservation; the exit of one community from the project that reported the highest annual water usage affecting the average usage rate for all member communities; and the assumption that implementing a metered rate for all customers in the system will encourage water conservation. As such, the Feasibility Report (2014) determined that using 153 gpcd to estimate ADD at buildout (and subsequent design of the system) was reasonable and conservative.

For Phase 1, the maximum day demand (MDD) of 510 gpm was calculated using a peaking factor of 3.5.

C. NATURAL FEATURES

Phase 1 of the MJRWS includes the area from the Ubet wellfield to the town of Harlowton. The project area is located within the Northwestern Great Plains Ecoregion, which is largely an unglaciated, semiarid and rolling plain that is underlain by shale, siltstone and sandstone. The predominant land use within the MJRWS project area is agriculture, both farming and ranching. Soils in this area are classified as primarily clayey loams, silty clay loams, and silty clays. No bedrock is expected to be encountered in the Phase 1 project area. The MJRWS wells located in the Ubet wellfield will access and deliver water from the Madison aquifer. The Madison Aquifer occurs primarily within the Mission Canyon

formation of the Madison Group. This group consists of the Lodgepole, Mission Canyon, and Charles Formations. The project area includes several wetlands but will not impact the many tributaries in the area. In addition, construction will not occur within the 100-year floodplain for Phase 1.

V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Land Use – Land use within the Phase 1 project area has relatively little diversity, as it is predominately agriculture. Dryland and irrigated farming and livestock grazing are the most common land uses within the project area. Pipeline and storage tank construction would temporarily disturb the land surface within the project area. Surface disturbance activities would be minimal and short-term and would have minimal impacts. The majority of the pipeline route will be within or immediately adjacent to the county right-of-way (ROW) (Old Gap Road) and private landowner easements in which land use opportunities to residents within the project area are limited; therefore, any restriction in surface or subsurface use associated with the pipeline would have a very minor and negligible effect on land use within the project area (Tetra Tech, 2014). The storage tank will require the purchase of approximately 2 acres of land from private landowners (Great West Engineering, 2014).

2. Floodplains and Wetlands – None of the project area lies within the 100-year floodplain. Wetlands occur within portions of the project area. Disturbance of wetlands would be avoided wherever possible. It is likely that wetlands may need to be crossed during pipeline construction and installation. When wetlands are identified as needing to be bisected by the pipeline, a complete wetland delineation by a qualified wetland biologist would occur. Any ground disturbing activities associated with the proposed action that would occur within a jurisdictional wetland would require a complete review from the USACE. A Section 404 permit would be submitted and compliance with any identified mitigation would occur. Any disturbed wetlands would be reclaimed as soon as possible, and stock-piled hydric soils would be replaced. Wetlands would also be restored to the previous contours. In addition, restored wetlands would be monitored for three-years after restoration to ensure reestablishment of functions and values. The proposed action would result in some disturbance of wetlands and temporary disturbance of wetland functions and values within those disturbed wetlands. However, due to the mitigation measures, it is expected that a relatively small area of wetlands would be disturbed. Implementation of post-disturbance mitigation measures would ensure that impacts are short-term (Tetra Tech, 2014).

3. Cultural Resources – It is unlikely that cultural resources would be located within the proposed route as much of the route would occur within a ROW that has been previously disturbed (Old Gap Road). In the event that a cultural resource is discovered during construction, activities in the discovery area will be suspended and Reclamation and any other appropriate authorities, including the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO), will be notified to determine the nature of the discovery. Depending on the nature of the discovery, additional cultural resource inventory and/or mitigation may be necessary. Due to implementation of mitigation measures, there are no foreseeable future actions that would result in adverse impacts to historical or cultural resources (Tetra Tech, 2014; Feasibility Report, 2014).
4. Fish and Wildlife – Land disturbance activities associated with transmission main installation would occur within a small area along the route (approximately 20 feet in width). In addition, the majority of Phase 1 construction and installation activities would occur within or immediately adjacent to a county ROW adjacent to Old Gap Road or in or near utility easements on private property.

The distribution of wildlife is low within these areas relative to the region. However, construction activities would temporarily displace any present wildlife in the area of the activities. Disturbance and associated displacement would be brief and disturbed areas would be reclaimed and reseeded upon completion of construction and installation. Any wildlife displaced within a specific area during the pipeline installation phase would resume to normal activities upon completion of the activities. Regarding sage grouse, there is not a sage grouse habitat within or in proximity to the Phase 1 project area.

Any perennial stream crossings encountered along the Phase 1 pipeline route will be bored under to protect fish habitat and water quality. Intermittent and ephemeral streams would be open-trenched, but only during times in which construction and reclamation can be completed prior to the presence of water within the stream (Tetra Tech, 2014).

5. Water Resources and Water Quality – CMRWA conducted extensive studies and research to address water resource concerns raised during planning, primarily overuse of the Madison Aquifer impacting neighboring communities. Studies showed the MJRWS would not negatively impact available water resources for neighboring communities and there were no objections for the water rights application for the wells for this project (Feasibility Report, 2014).

Impacts on water quality for wetlands and intermittent streams are expected to be minor and short-term during construction and can be controlled through proper construction practices.

6. Social and Economic Resources - Traffic and maintenance of traffic flow would be a high priority during construction activities within the Old Gap Road ROW. Disruptions of traffic would be kept to a minimum ensuring less than a 10-minute delay. All crossings or construction within the Old Gap Road ROW would require a permit or permission from the county agency; Pipeline design would ensure that any potential pipeline breaks would not endanger adjacent roads; and as the pipeline is developed, residents and landowners will have an opportunity to receive water from the supply system wherever it is feasible (Tetra Tech, 2014).
7. Soils and Vegetation - Some prime farmlands and farmlands of statewide importance may be disturbed during installation of the pipeline. However, over half of disturbed areas would occur within or immediately adjacent to county ROWs and would have relatively less value. These areas were likely previously disturbed and do not represent rare or sensitive vegetation communities. These areas would also be reclaimed as soon as disturbance activities were completed.

The proposed action would have temporary impacts on vegetation. The disinfection building will be constructed next to Well #2 in an area where the ground has been previously disturbed. Still, vegetation will be removed near and in the building footprint. However, these impacts would occur over a relatively small area, disturbance would be kept to a minimum, and vegetation would be reseeded and restored where possible. Pipeline and storage tank construction and installation activities would remove vegetation along the pipeline route and storage tank footprint. However, sensitive plants such as sagebrush would be avoided whenever possible. All disturbed areas would be reclaimed and reseeded as soon as possible (Tetra Tech, 2014).

8. 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 users of the system proportionately. No disproportionate effects among any portion of the community are expected.

B. UNAVOIDABLE ADVERSE IMPACTS

Short-term construction-related impacts such as traffic disruption will occur but can be minimized through proper construction management. No permanent direct, indirect, or cumulative adverse impacts are anticipated as a result of the proposed

MJRWS Phase 1 project.

VI. AGENCY ACTION, APPLICABLE REGULATIONS, AND PERMITTING AUTHORITIES

All water supply and conveyance infrastructure will be designed to meet DEQ requirements. Proper state regulatory review and approval of the project plans and specifications will be provided. All applicable local, federal, and state permits will be obtained.

Required County ROW Encroachment Permits, Railroad Crossing Easements, and private landowner easements have or will be obtained for Phase 1 of the project. In addition, permits for storm water, construction dewatering, and the Clean Water Act (404 Permit) and the County Weed Board Submission of a weed management plan have or will be submitted for Phase 1 of the project.

VII. PUBLIC PARTICIPATION

CMRWA holds board meetings every month for which the public is welcome to attend. The location of the meetings typically rotates between member communities, and maintains a consistent stream of communication to keep up with the current state of affairs. During the planning phase, CMRWA has also held advertised public meetings to inform the public and communities of the project and its status and progress.

VIII. REFERENCE DOCUMENTS

The following documents were used in the environmental review of this project and are considered part of the project file:

- A. Great West Engineering. (2019). Central Montana Regional Water Authority – Musselshell Judith Rural Water System Phase I Design Report.
- B. Great West Engineering. (2014). Musselshell-Judith Rural Water System Feasibility Report.
- C. Tetra Tech. (2014). Musselshell-Judith Rural Water System – Central Montana Regional Water System Environmental Assessment.
- D. Great West Engineering. (2010). Phase II Feasibility Report Musselshell-Judith Rural Water System.
- E. Great West Engineering. (2009). Phase I Feasibility Report Musselshell-Judith Rural Water System.

IX. AGENCIES CONSULTED

Thirty-two entities that included cities, towns, and state and federal agencies were contacted regarding the proposed construction of the MJRWS. In addition, several agencies have worked with the CMRWA to determine feasibility and environmental implications including the Central Montana Resource Conservation District, the Department of Natural Resources, Fish, Wildlife, and Parks, and the Bureau of Reclamation. During the planning phase of the Regional system, the following entities provided written correspondence regarding the project:

- A. The Montana Historical Society, State Historic Preservation Office (SHPO); letter dated November 30, 2010.
- B. Montana Department of Transportation (MDT); letter dated December 20, 2010.
- C. Montana Department of Environmental Quality (MDEQ); letter dated December 6, 2010.
- D. City of Lewistown; letter dated December 29, 2010.
- E. Big Spring Creek Watershed Council, Lewistown, Montana; letter dated January 25, 2011.
- F. Fergus Conservation District; letter dated December 30, 2010.
- G. The U.S. Army Corps of Engineers; letter dated December 16, 2010.

X. RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS

EIS More Detailed EA No Further Analysis

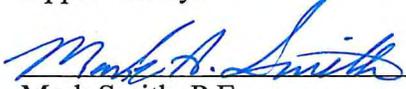
Rationale for Recommendation: Based on the Environmental Assessment (Tetra Tech, 2014), the Feasibility Report (Great West Engineering, 2014), other referenced documents which were developed for all phases of the MJRWS (see above), and the Phase 1 Design Report (Great West Engineering, 2019), the DEQ has verified through this EA that none of the adverse impacts of the proposed MJRWS Phase 1 project which includes installation of a storage tank, a disinfection building, and a transmission main that extends from the Ubet Wellfield to the town of Harlowton 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 and 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:

Sandie Koenig, P.E.

Date

Approved By:

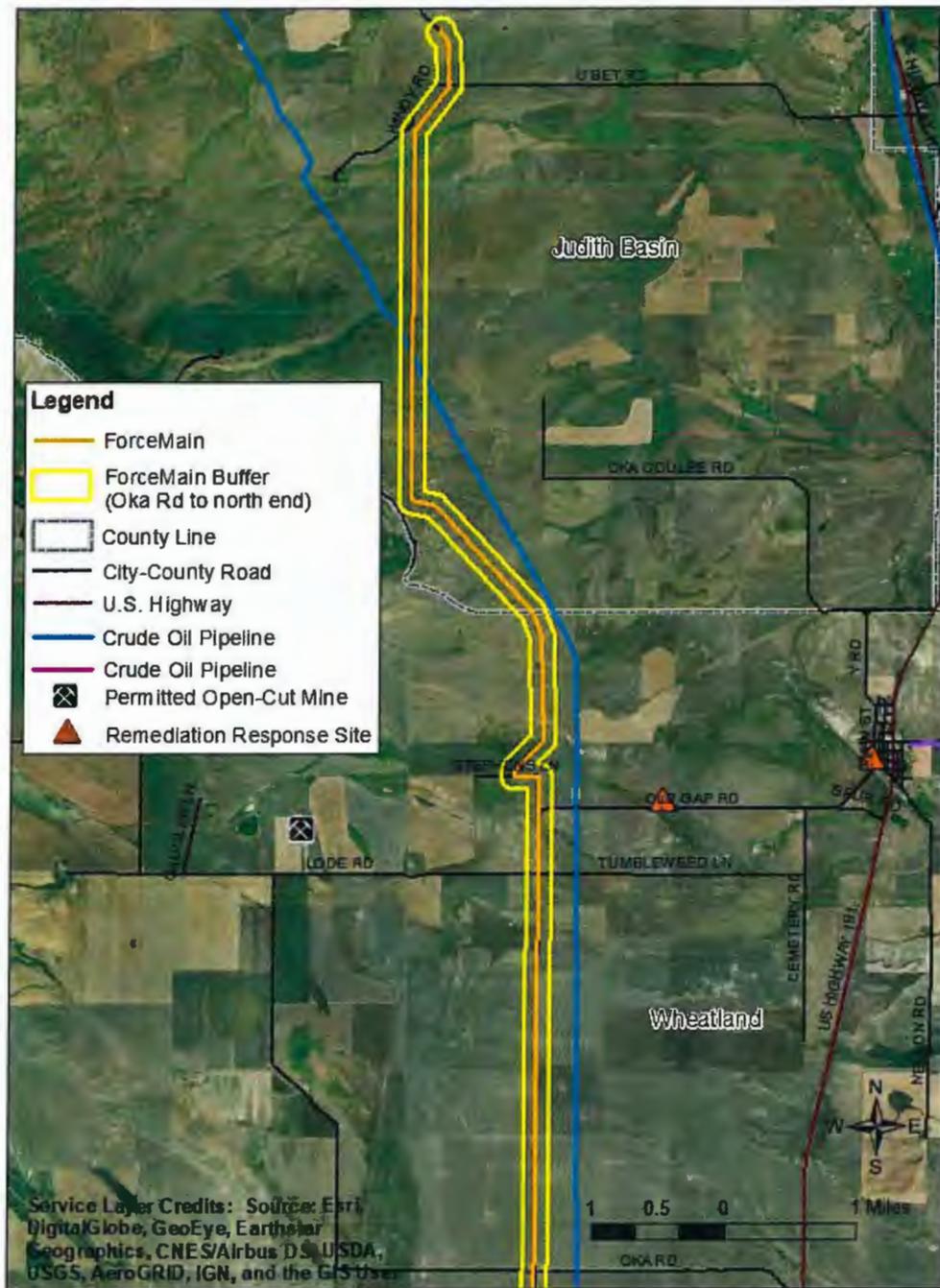


Mark Smith, P.E.

2/6/20

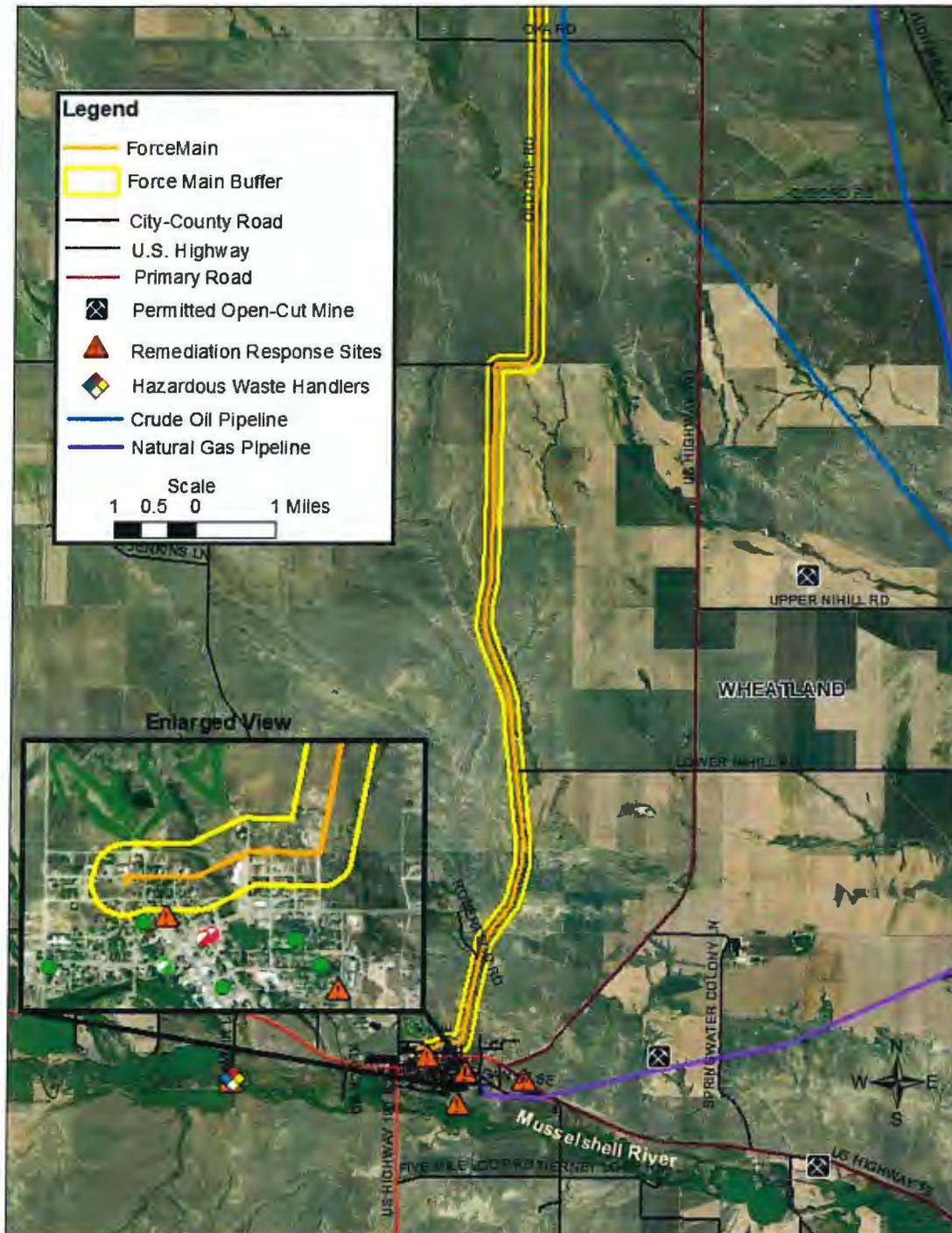
Date

Figure1. CMRWA Musselshell Judith Rural Water Authority (OKA Rd to north end)
 Potential Contaminant Source Review



Mapping by Carolyn DeMartino, DEQ Water Quality Division, January 2020

Figure 2. CMRWA Musselshell Judith Rural Water System (S.W. end of main to OKA Rd)
 Potential Contaminant Source Review



Mapping by Carolyn DeMartino, DEQ Water Quality Division, January 2020