



State Revolving Fund Loan Programs

Drinking Water, Clean Water, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

TOWN OF MONTEZUMA WATER SYSTEM IMPROVEMENTS SRF PROJECT DW 23 34 61 02

DATE: May 3, 2024

TARGET PROJECT APPROVAL DATE: June 4, 2024

I. INTRODUCTION

The above entity has applied to the Drinking Water State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the Clean Water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed in color at <http://www.in.gov/ifa/srf/>.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The SRF Wastewater Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 5-1.2-3, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FONSI. Comments must be received at the address below by the target approval date above. Significant comments may prompt a reevaluation of the preliminary FONSI; if appropriate, a new FONSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FONSI as appropriate. Comments regarding this document should be sent within 30 days to:

Jenni Curry
Environmental Review Manager
State Revolving Fund
100 N. Senate Ave. IGCN 1275
Indianapolis, IN 46204
463-261-6943
jecurry@ifa.in.gov

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address: Water System Improvements
Town of Montezuma
1243 North Jackson St
Montezuma, IN 47862

SRF Project Number: **DW 23 34 61 02**

Authorized Representative: John Norris, President

II. PROJECT LOCATION

The proposed project is located in Parke County, Reserve township, Montezuma USGS Quadrangle, Sections 26, 35, and 36 of Township 16 N, Range 6 W.
See **Figure 1**.

III. PROJECT NEED AND PURPOSE

The Town of Montezuma has increased levels of nitrate in its source water and the existing water treatment does not treat for nitrate. The treated water nitrate concentrations have exceeded the EPA maximum contaminant level (MCL) multiple times since 2019. As a result, the Town of Montezuma is under an Agreed Order with IDEM (Case No. 2021-27883-D) to address non-compliance with the National Primary Drinking Water Standards for nitrate. Additionally, the pumps, electrical systems, and buildings associated with the community's wells have reached their end of useful life.

The purpose of the project is to reduce treated water nitrate concentrations below the MCL in order to bring the Town's water system into compliance with State drinking water regulations and Federal Safe Drinking Water Act (SDWA) requirements. The project will also replace source water assets that have exceeded their useful life, ensuring adequate water supply to the system.

IV. PROJECT DESCRIPTION

The Water System Improvements project (Figures 3 and 4) includes:

- Replacement of the three existing well pumps and associated electrical upgrades.
- Construction of a new water treatment facility at Aztec Park, including chlorine injection pretreatment, high service pumps, vertical pressure filters, sodium bisulfite and anti-scalant chemical feed systems, a packaged reverse osmosis treatment system, chlorine disinfection, and a stabilization chemical feed system. Construction of the facility also includes a new building to house treatment units, along with office, lab, and restroom space, waste handling holding tank and pump station, site development and utility installation, backup emergency power, and other miscellaneous construction.
- Construction of approximately 2,200 LF of 2" force main and 400 LF of 8" gravity sewer, along with a new outfall to the Wabash River, installed along Jackson and Patterson Streets, to convey and discharge RO concentrate from the proposed treatment facility.

- Construction of a sanitary lift station, approximately 1,300 LF of 2” force main installed along Jackson and Wilkison Streets, and a vacuum sewer pit near the intersection of Wilkison and Madison Streets, to convey and discharge sewage and filter backwash from the proposed treatment facility to the Town’s existing sanitary sewer system.

The proposed project is in alignment with the IDEM-approved Compliance Plan associated with the Agreed Order.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

Total cost of this project is estimated to be approximately \$8,530,000. The Town will finance the project with a loan from the Drinking Water SRF Loan Program for a term and annual fixed interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

No Action: The “no action” alternative is not feasible. Currently the Town is out of compliance with the State and Federal drinking water standards for nitrate. The “no action” alternative would not allow the Town to be compliant with this requirement and would result in the Town violating its Compliance Plan and Agreed Order. As this alternative does not address the public health concerns, it will not be considered further.

Modify Existing Wells and Construct New Reverse Osmosis (RO) Treatment Facility (Selected Alternative): This alternative includes the replacement of the three existing wells and associated electrical upgrades, along with construction of a new RO water treatment facility at Aztec Park. A new force main and gravity sewer will also be constructed. A new outfall to the Wabash River will be installed to convey and discharge RO concentrate from the proposed treatment facility. Total project cost for this alternative is estimated to be approximately \$8,530,000. This alternative was selected because it economically meets the project purpose and need within the time allotted by the Compliance Plan. It offers the best balance of monetary value, technical capability, reliability, implementability and environmental impact.

Modify Existing Wells and Construct New Ion Exchange (IX) Treatment Facility: This alternative includes the replacement of the three existing wells and associated electrical upgrades, along with construction of a new IX water treatment facility at Aztec Park. Waste brine would be stored and hauled offsite for disposal. Total project cost for this alternative is estimated to be approximately \$7,940,000. This alternative was determined to be economically comparable to the selected alternative on a capital and 20-year net present worth basis. This alternative was discarded primarily due to concerns associated with equipment lead times and ability to implement the alternative within the time allotted by the Compliance Plan.

Regionalization: Several regionalization alternatives where Montezuma would purchase water from an existing utility were explored, including regionalization with Hillsdale Water Corporation, Town of Bloomingdale, City of Rockville, and Indiana-American Water (Mecca). Following discussions with each utility, regionalization with Hillsdale, Bloomingdale, and Rockville were determined to be economically unfeasible due to system capacity limitations.

Regionalization with Indiana-American Water (Mecca) would consist of decommissioning the existing Montezuma wellfield and construction of a 5.5-mile transmission main. The Mecca system has the capacity to supply treated water to Montezuma without significant improvements to the water supply. However, the finished water has manganese concentrations greater than EPA’s acceptable level. To address this, construction of a new vertical pressure filter water treatment facility would be

needed. This alternative would also require considerable land acquisition to install a new transmission main. Total project cost for this alternative is estimated to be approximately \$13,300,000. This alternative was discarded due to monetary and non-monetary reasons.

Develop New Wellfield and Abandon Existing Wells: This alternative includes developing a new wellfield and abandoning the existing one. The new wellfield would include three vertical-turbine wells, each with a tower, platform, valve vault, and discharge piping, and require installation of a transmission main from the new wellfield to the existing distribution system. A new building to house electrical equipment, chlorine disinfection, and polyphosphate chemical feed equipment (if required) would be constructed under this alternative.

Two sites were preliminarily explored for wellfield development, one site approximately 3 miles east of Montezuma, and one site approximately 4 miles south of Montezuma. Total project costs for this alternative were estimated to be between \$6,430,000 and \$7,880,000, respectfully. This alternative was discarded due to nonmonetary concerns, specifically, the lengthy timeline required to develop a new wellfield and the uncertainty of aquifer capacity and quality, and land acquisition.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed/Undisturbed Land: All areas have been previously disturbed by construction activity or subject to an archaeological survey.

Structural Resources (Figure 2): Construction and operation of the project will not alter, demolish or remove historic properties. If any visual or audible impacts to historic properties occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "*no historic properties affected.*"

Surface Waters: The project will not adversely affect outstanding state resource waters listed in 327 IAC 2-1.3-3(d), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), or Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3) or streams on the Outstanding River List for Indiana. The project includes discharge to the Wabash River. The discharge will be regulated under the NPDES program.

Wetlands: This project will not impact any wetlands.

Floodplain: The 400 of 8" PVC gravity sewer and concentrate discharge/outfall to the Wabash River is located in the 100-year floodplain, but the remainder of the the proposed project is outside of the floodplain. The project will not include dredge or fill in the floodway without a permit from IDNR Division of Water. No change in grade will occur within the floodplain.

The Town's Preliminary Engineering Report (PER) states: *The applicant, through local building codes, the authority of its council or planning commission, or other means, will ensure that the SRF-funded facilities will be protected from the 500-year flood, to two feet above the base flood elevation for non-critical infrastructure, or to three feet above the base flood elevation for critical infrastructure, in accordance with Executive Order 13690.*

Groundwater: The project will not impact a drinking water supply or sole source aquifer.

Plants and Animals: The proposed project items will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

Prime Farmland: The project will not convert prime farmland.

Air Quality: Construction activities may generate some noise, fumes and dust, but should not significantly affect air quality.

Open Space and Recreational Opportunities: The project will reduce the open space in Aztec Park by 8,800 square feet, including elimination of an existing basketball court. The Town is considering park improvements to mitigate this impact, including construction of a consolidated basketball/pickleball/tennis court.

Lake Michigan Coastal Program: The project will not affect the Lake Michigan Coastal Zone.

National Natural Landmarks: Construction and operation of the proposed project will not affect National Natural Landmarks.

B. Indirect Impacts

The Town's Preliminary Engineering Report (PER) states: *The Town, through the authority of its Council, will ensure that future development, as well as future water distribution system or treatment works projects connecting to SRF-funded facilities, will not adversely affect wetlands, wooded areas, steep slopes, archaeological/historical/structural resources or other sensitive environmental resources. The city will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

In correspondence dated January 30, 2024, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

Pursuant to Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and 36 C.F.R. Part 800, the staff of the Indiana State Historic Preservation Officer (“Indiana SHPO”) has conducted an analysis of the materials dated January 19, 2024 and received on January 24, 2024, for the above indicated project in the Town of Montezuma, Parke County, Indiana.

We concur with the January 19, 2024 finding that there are no historic buildings, structures, districts, objects, or archaeological resources within the area of potential effects that will be affected by the above indicated project.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

In correspondence dated April 29, 2024, the United States Fish and Wildlife Service responded with:

The USFWS concluded that the proposed project impacts, project code 2024-0082754, would have a “not likely to adversely affect” determination on the Indiana bat (*Myotis sodalis*), Northern Long-eared Bat (*Myotis septentrionalis*), and the, proposed endangered, Tricolored Bat (*Perimyotis subflavus*). All other species were excluded from analysis. The USFWS proposed several conservation measures which include:

- 1. Dust control will occur with the use of water for wetting and keeping dust limited. Earth moving activities will require water wetting of the soil before moving.*
- 2. Limit noise. Noise from construction activities will be limited to daylight hours only.*
- 3. Vegetation will be protected from damage or removal as much as reasonably possible. Only trees and vegetation required for construction shall be removed.*
- 4. Tree removal will be limited to winter months when the bats are not roosting in order to limit damages. Also, the number of trees will be minimized as much as possible.*
- 5. Excavation activities will be halted if bats are encountered.*

In correspondence dated October 9, 2023, the Department of Natural Resources Environmental Unit stated:

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment:

This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. However, if the project qualifies for utility exemption under Administrative Rule 312 IAC 10-5-4 (see enclosures), a permit from the Department is not required. Please include a copy of this letter with the permit application (if required).

Natural Heritage Database:

*The Natural Heritage Program's data have been checked. The Division of Nature Preserves does not anticipate any effects to the State endangered Royal Catchfly (*Silene regia*), which has been documented within .5 mile of the project area. The following species of fauna have also been documented within .5 mile of the project area:*

- Plains Leopard Frog (*Lithobates blairi*), State endangered*
- Blanchard's Cricket Frog (*Acris blanchardi*), State special concern*
- Round Hickorynut (*Obovaria subrotunda*), State endangered*
- Ohio Pigtoe (*Pleurobema cordatum*), State special concern*

Fish and Wildlife Comments:

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

A) Heritage Species

The Division of Fish and Wildlife does not anticipate any significant effects to the above-listed species due to this project.

B) Street Trees

The Division of Fish and Wildlife recommends avoiding removing urban trees to the greatest extent possible and replacing trees that must be removed. Street trees are important to fish and wildlife resources in urban areas. Indiana's street trees also provide millions of dollars of tangible benefits to Indiana communities by their presence in the urban environment. Their shade and beauty contribute to the quality of life. They provide significant increases in real estate values, create attractive settings for commercial businesses, and improve community neighborhood appeal. Trees decrease energy consumption by providing shade and acting as windbreaks. They reduce water treatment costs and impede soil erosion by slowing the runoff of stormwater. Trees also cool the air temperature, cleanse pollutants from the air, and produce oxygen while absorbing carbon dioxide. Trees are an integral component of the urban environment. Proactively managing and maintaining a street tree population will ultimately maximize the benefits afforded by their aesthetic and ecological functions. The following links give a good overview of the benefits of a street tree program and how to select the right species to avoid the negative impacts of non-native invasive species such as the common and popular Bradford pear: <https://www.in.gov/dnr/forestry/forestry-publications-and-presentations/> (scroll down to the Community & Urban Forestry section).

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. *Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.*
2. *Minimize and contain within the project limits all tree and brush clearing.*
3. *Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.*
4. *Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
5. *If erosion control blankets are used, they shall be heavy-duty, biodegradable, and net free or use loose-woven/Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.*
6. *Plant five trees, 1 inch to 2 inches in diameter-at-breast height, for each tree which is removed that is 10 inches or greater in diameter-at-breast height.*

In correspondence dated October 11, 2023, the Natural Resources Conservation Service stated:

The proposed Water System Improvements within the Town of Montezuma in Parke County, Indiana, as referred to in your letter received October 11, 2023, will not cause a conversion of prime farmland.

VIII. MITIGATION MEASURES

Town of Montezuma's PER states:

The project will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Department of Natural resources and the U.S. Fish and Wildlife Service will be implemented.

Removal of existing vegetation will be kept to a minimum. Whenever feasible and, when appropriate, land grading and excavating will be kept to rights-of-way and to a minimum in order to reduce the possibilities of creating excessive runoff and erosion problems. Appropriate structural (e.g., sediment basins, riprap) or agronomic (e.g., seeding, mulching, liming, fertilizing) practices to control erosion and sedimentation will be in place during and after construction. Drainage systems will be stabilized as early as possible to avoid sedimentation problems. Surface and subsurface drainage patterns will be restored as early as possible. Construction entrances, roadways and parking lots will be stabilized as soon as possible by means of stone pads or paving. An erosion and sedimentation control plan will be developed and implemented in coordination with the U.S. Natural Resource Conservation Service.

Areas of exposed soil will be periodically wetted. No chemicals will be used for dust control. Construction roads, pipe storage areas, and spoils storage areas will be confined to the upland side of the trench area so that any erosion will be into the trench rather than being washed in drainage ways. Topsoil will be stockpiled separately for future use and top dressing for those areas to be restored. Excess material resulting from pipe volume displacement will be saved for use on other parts of system construction. Dewatering will not be discharged directly to surface waters without first being directed to a temporary sedimentation basin.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on October 19, 2023, at 6:00 pm at the Montezuma Community Center to discuss the PER. No questions or comments were received during the public hearing. No written comments were received during the 5-day comment period following the hearing.

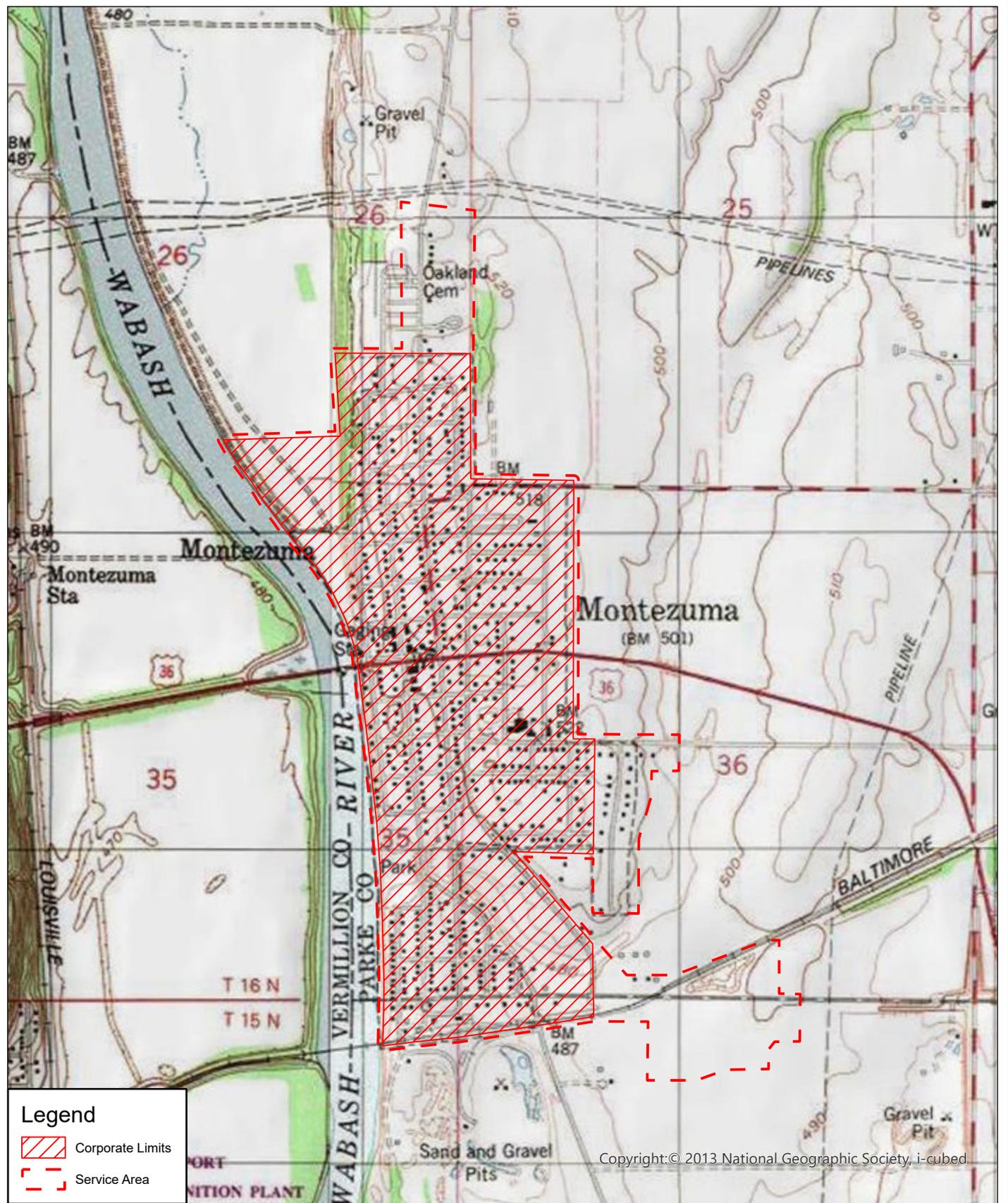
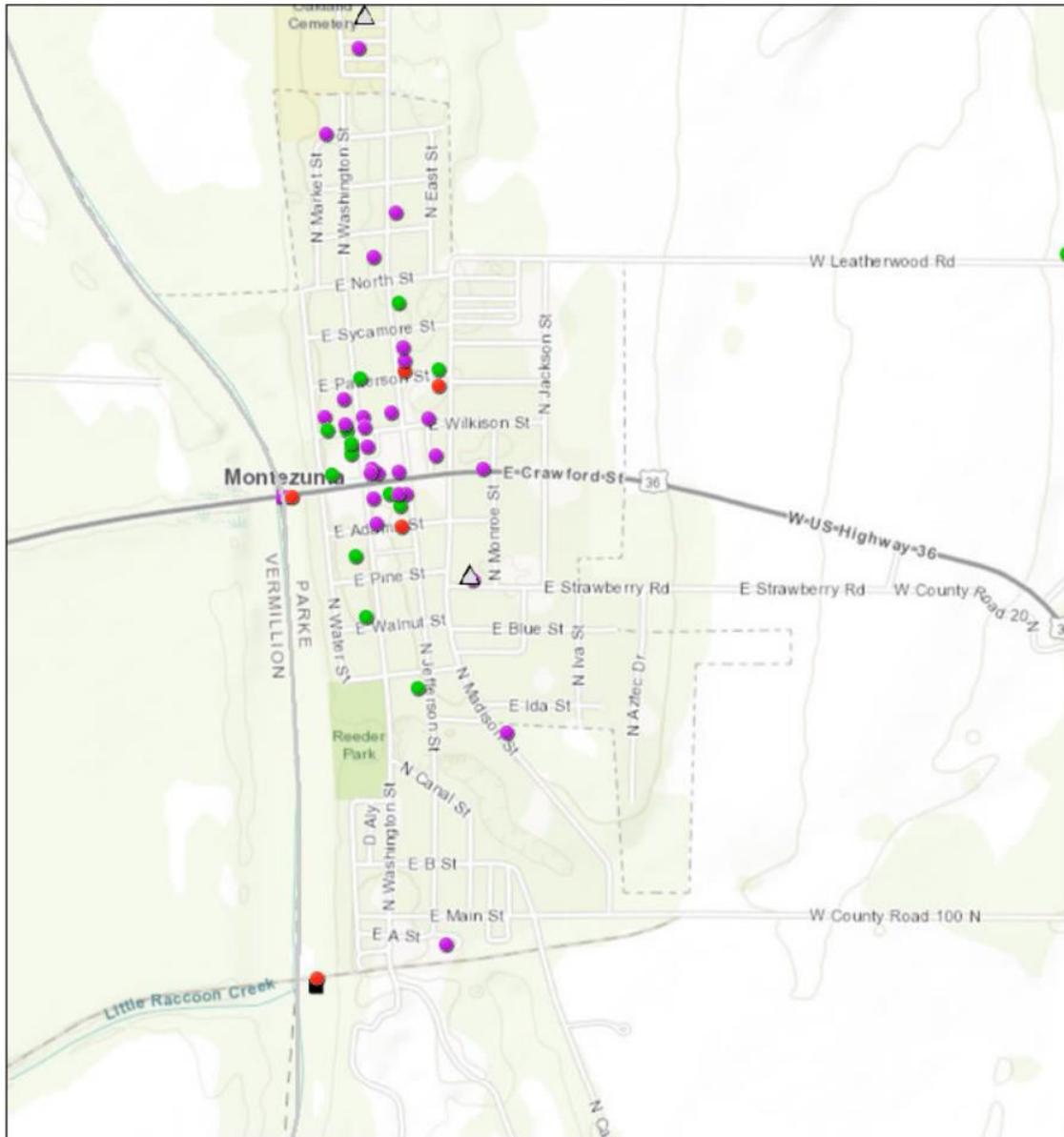


Figure 1
Water System Improvements PER
Corporate Limits
Montezuma, Indiana
March 2023

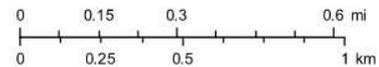
Historic Buildings, Bridges, and Cemeteries Map



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- | | | | |
|---|---------------------|---|------------------|
|  | Cemeteries |  | Historic Bridges |
|  | County Survey Sites |  | Contributing |
|  | Outstanding |  | Demolished |
|  | Notable | | |
|  | Contributing | | |

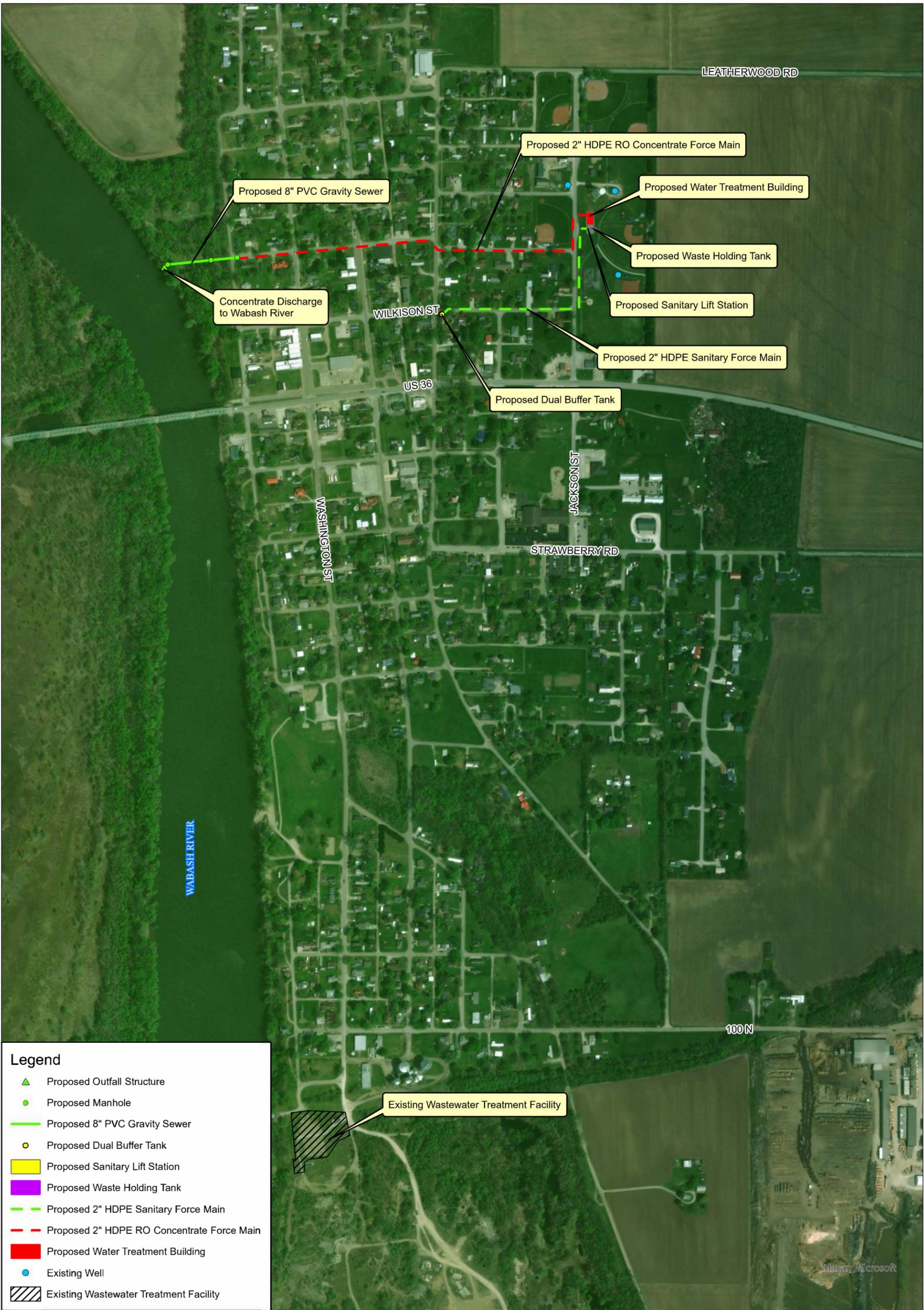


Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Indiana DNR DHPA
2019 Indiana Dept. of Natural Resources, DHPA



Figure 2
Water System Improvements PER
SHAARD Map
Montezuma, Indiana
March 2023



Legend

- Proposed Outfall Structure
- Proposed Manhole
- Proposed 8" PVC Gravity Sewer
- Proposed Dual Buffer Tank
- Proposed Sanitary Lift Station
- Proposed Waste Holding Tank
- Proposed 2" HDPE Sanitary Force Main
- Proposed 2" HDPE RO Concentrate Force Main
- Proposed Water Treatment Building
- Existing Well
- Existing Wastewater Treatment Facility

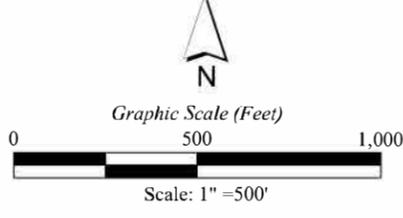


Figure 3
 Water System Improvements PER
 Selected Plan
 Montezuma, Indiana
 Revised April 2024

Legend

-  Proposed Outfall Structure
-  Proposed Manhole
-  Proposed 8" PVC Gravity Sewer
-  Proposed Dual Buffer Tank
-  Proposed Sanitary Lift Station
-  Proposed Waste Holding Tank
-  Proposed 2" HDPE Sanitary Force Main
-  Proposed 2" HDPE RO Concentrate Force Main
-  Proposed Water Treatment Building
-  Existing Well
-  Existing Wastewater Treatment Facility

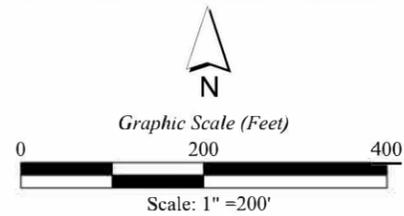


Figure 4
 Water System Improvements PER
 Selected Plan
 Montezuma, Indiana
 April 2024

Maxar, Microsoft