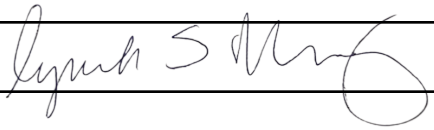
2024 Nonpoint Source and Wetlands Section Focus Watershed Application Form

Final Deadline: January 3, 2025 at 5:00 pm

Applications must be submitted through eMACS

Applicant	Evergreen Water and Sewer District				
Primary Contact	Cynthia Murray	Title	General Manager		
Address	108 Cooperative Way				
City	Kalispell	State	MT	Zip Code	59901
Phone Number	406-257-5861	Email Address	cmurray@evergreenwaterdistrict.com		
Signature					

Proposed Focus Watershed

Proposed HUC 10 Watershed: City of Columbia Falls - Flathead River (HUC 1701020802)

List the impaired waterbodies within the proposed HUC 10 watershed, along with their identified impairments from Montana's List of Impaired Waters. https://deq.mt.gov/files/Water/WQPB/CWAIC/Reports/IRs/2020/Appendix_A_Final.pdf

Waterbody	Impairment Causes
Flathead River (MT76O001_010)	This section of the Flathead River is not currently on the 303(d) list for impairment because it has not yet been assessed. However, according to the "Onsite Wastewater Risk Analysis Report", prepared for the Flathead Basin Commission in 2022; the Flathead River is contaminated with Nitrate caused by the proximity of septic systems with insufficient soil
	filtration. Flathead River flows directly to Flathead Lake, which is impaired for nutrients (nitrogen and phosphorus).
Flathead Lake (MT76o003_010)	Impairment causes: Nutrient pollution (nitrogen and phosphorus). Septic leachate from high-density and older systems contributes to algal blooms and water quality degradation. Mercury, total Nitrogen, total Phosphorus, and polychlorinated biphenyls (PCBs).
	Other sources include atmospheric deposition of nitrogen, dam or impoundment, municipal point source discharges, silviculture harvesting, and urban stormwater.
Whitefish River (MT76P003_010)	Impairment causes: oil and grease, Polychlorinated Biphenyls (PCBs), temperature. Sources include accidental release / spill, industrial point source discharge, silviculture activities, site clearance, and wet weather discharge (SSO or CSO). Additionally, the Onsite Wastewater Risk Analysis Report (2022) identifies a high-risk zone for septic system effectiveness in the areas
	between the Flathead River and the Whitefish River, south of Highway 40, where higher levels of development and physical risk factors are concentrated. These risks are linked to issues such as older and denser septic systems in proximity to water bodies, shallow groundwater, and soil characteristics that may not adequately treat contaminants.

Water Quality Impairment Causes and Solutions

Describe the root cause of water quality problem(s) and the solution(s) needed to address the issue(s) within your proposed HUC 10 watershed. **(20 pts)**

The Flathead Lake watershed is not just one of Montana's most stunning natural treasures; it is a keystone environmental, economic, and cultural resource whose health directly affects the well-being of the entire state. As the largest natural freshwater lake in the western United States, the Flathead Lake watershed holds immense ecological significance, supporting diverse ecosystems, pristine water quality, and a unique blend of recreational, agricultural, and cultural activities. Non-point source pollution is the leading cause of water quality issues in Montana, and it endangers this critical resource, making it the most urgent area in Montana to prioritize funding for non-point source pollution removal.

Water quality problems in the Flathead Basin stem primarily from failing septic systems, nutrient contamination, geophysical challenges, and unpermitted septic systems. Aging and outdated septic systems, often over 20 years old, underperform due to improper siting, design, or maintenance1. This results in leachate contaminating groundwater and surface water, particularly in high-density areas where soil treatment capacity is inadequate. Contaminants such as nitrogen, phosphorus, bacteria, viruses, pharmaceuticals, and personal care products degrade water quality and aquatic habitats, with excess nutrients fueling harmful algal blooms. Geophysical factors, including shallow groundwater, proximity to surface water, steep slopes, and poor soil conditions, further exacerbate the issue by hindering effective wastewater treatment. Additionally, many older systems installed before permitting (or simply installed without permitting) lack documentation, complicating efforts to assess and address their impacts.

Upgrading or replacing aging septic systems is imperative to address these challenges. Geospatial risk mapping tools, such as GIS-based models, have been used to identify and prioritize high-risk areas for remediation. The 2017 Montana Nonpoint Source Management Plan states that financial assistance is needed to support projects that focus on specific septic system issues. These efforts can mitigate non-point source pollution, protecting the basin's water quality and ecological health.

When restoring and protecting watersheds, addressing nonpoint source pollution from failing and unpermitted septic systems is not just an option—it is the essential first step to address the root cause of the problem - upon which all subsequent restoration efforts depend.

(...this section is continued at the end of the application.)

Local Momentum and Organizational Capacity

Describe the current momentum that exists within the watershed for implementing the solution(s) described above. Describe the capacity of your organization and partners to administer focus watershed funds. **(20 pts)**

The Evergreen Water and Sewer District has served the Evergreen community since 1965. The water system was installed in the mid to late 1960s following a significant flood in 1964. In 1994, the District expanded its services to include wastewater management, becoming the Evergreen Water and Sewer District. Until a couple of years ago, the District rarely, if ever, sought any grant or loan funds. Today, the District faces large infrastructure challenges, including failing septic systems, failing water and sewer mains, low water pressure areas, issues meeting fire flow requirements, and the need for additional water storage. The largest looming infrastructure need, which is being studied now, is the need for a new regional wastewater treatment plant. Evergreen currently sends wastewater to Kalispell for treatment, but the flow rates have been capped, and this is not a long-term solution as the region continues to grow and as failing septic system owners look for solutions.

Over the past 5 years or so, the Evergreen Water and Sewer District has made great strides in increasing its organizational capacity, including making key hires, purchasing a new administrative building, completing a sewer system preliminary engineering report, procuring services for preparation of water and wastewater treatment alternatives preliminary engineering reports (both underway now), completing rate studies and enacting rate increases, and pursuing grants and loans. The utility can now successfully manage large infrastructure projects, as demonstrated by the successful completion of three of six ARPA projects totaling over $4 million and substantially completing the Meadow Manor Septic Tank Replacement Project, which replaced 22 failing cinder block septic tanks and service lines that were significantly leaking as evidenced by soil testing. The District has been managing infrastructure projects with budgets in excess of $18 million over the last few years. The District has also managed grants and loans through the ARPA, SRF, RRGL, and MCEP Programs. The Evergreen Water and Sewer District has the capacity and expertise to manage grant funds and infrastructure projects successfully.

The District has created a strategic partnership with the local school district, and together they have identified the need for an educational program to raise awareness of the importance of prudent septic tank management by District customers as well as the overall issues of the impacts of septic tank leachate on groundwater and water resources in the Flathead. Creating and implementing the program starting in the Evergreen School District and expanding to the larger Evergreen community will also be a focus of this grant activity. Two of the proposed projects will take place at Evergreen Schools, offering students an immersive, hands-on learning experience. These projects will allow students to explore the purpose behind the initiatives, actively engage in water quality and soil sampling, and observe the construction process firsthand, including important lessons on construction safety. Through this participation, students will develop a comprehensive understanding of their role within the ecological community they call home.

Anticipated Projects Use the table below to provide information on planned and proposed projects. The purpose of this information is to help determine local readiness to receive a significant influx of funding for projects. Projects do not need to be shovel-ready to be added to the table. Projects must restore and support native plants and animals and natural stream processes. Attach design drawings and other planning documents **where available**. **(30 pts)**

Project Name	Waterbody and Impairment to be Addressed	Planned BMPs and Quantity *(e.g., feet of fencing, miles of restored stream, acres restored wetlands, # and type of education and outreach events)*	List of Supporting Landowners and Partners	Estimated Total Project Cost	Design Drawings or Other Planning Documents Attached? (Y/N)
Septic Tank Replacement – Target Area 1, Cynthia Area	Flathead River / nutrients - septic system failures	This is a low-income neighborhood with aging septic systems that need replacement. The project includes replacement of 65 septic tanks that have been identified to be leaking from smoke detection.	The District owns and maintains the septic tanks in this target area. The District has easements that allow maintenance and replacement.	$ 2,758,007	Y
		These leaking tanks contribute to water quality degradation and pose risks to ecosystems and human health. Replacing septic tanks will resolve a significant source of nonpoint source pollution from the watershed helping to restore and	Customers have been supportive of past projects as they can directly see the benefit of reducing sewer backups and eliminating the immediate groundwater contamination.		N
		support native plants, animals, and natural stream processes.			N
Septic Tank Replacement – Target Area 2, Meadow Manor Area	Flathead River / nutrients - septic system failures	This is a low-income neighborhood with aging septic systems that need replacement. The project includes replacement of 26 septic tanks that have been identified to be leaking from smoke	The District owns and maintains the septic tanks in this target area. The District has easements that allow maintenance and replacement.	$ 1,188,698	Y
		detection. These leaking tanks contribute to water quality degradation and pose risks to ecosystems and human health. Replacing septic tanks will resolve a root cause and significant source of nonpoint source pollution from the watershed	Customers have been supportive of past projects as they can directly see the benefit of reducing sewer backups and eliminating the immediate groundwater contaminat		N
		to restore and support native plants, animals, and natural stream processes.			N

Anticipated Projects Use the table below to provide information on planned and proposed projects. The purpose of this information is to help determine local readiness to receive a significant influx of funding for projects. Projects do not need to be shovel-ready to be added to the table. Projects must restore and support native plants and animals and natural stream processes. Attach design drawings and other planning documents **where available.**

Project Name	Waterbody and Impairment to be Addressed	Planned BMPs and Quantity *(e.g., feet of fencing, miles of restored stream, acres restored wetlands, # and type of education and outreach events)*	List of Supporting Landowners and Partners	Estimated Total Project Cost	Design Drawings or Other Planning Documents Attached? (Y/N)
Septic Tank Replacement – Evergreen School District	Flathead River / nutrients - septic system failures	Replace aging septic tanks at the Evergreen Middle School and High School. The project includes replacing two 5000-gallon tanks at the Middle School and two smaller tanks with a single 3000-gallon	The District owns and maintains the septic tanks at both schools.	$ 204,339	N
		tank at the High School. This project would include an educational partnership program with the Evergreen School District to bring information about septic systems and water quality into the classroom.	The District has easements that allow maintenance and replacement. See letter of support from the School District.		N
					N
					N
					N
					N

Anticipated Projects Use the table below to provide information on planned and proposed projects. The purpose of this information is to help determine local readiness to receive a significant influx of funding for projects. Projects do not need to be shovel-ready to be added to the table. Projects must restore and support native plants and animals and natural stream processes. Attach design drawings and other planning documents **where available**.

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					N
					N
					N
					N
					N
					N

Partners, Roles, Letters of Support Use the table below to identify specific landowners, funders, technical service providers, and other partners who will support you and your efforts to reduce nonpoint source pollution in your proposed HUC 10 watershed. **Attach letters of support from each partner**. Invite partners who provide a letter of support to provide insight into how they will contribute to the success of the focus watershed effort. **(20 pts)**

Name of Partner	Anticipated Role in Focus Watershed Effort	Letter of Support Attached?
Evergreen School District	One of the planned projects includes septic tank replacement at the Elementary School and the Middle School. The School District and the Water and Sewer District will partner to implement an educational program resulting in increased knowledge of human impacts on water pollution and solutions.	Y
Evergreen Chamber of Commerce	The Chamber supports these efforts as the health of the community as well as the health of the watershed is critical to the economics and business success in the region. The Chamber will help with public education and awareness.	Y
Flathead County	Flathead County supports these and additional efforts to reduce nonpoint source pollution in the County, particularly the Evergreen septic tanks that contribute nutrients to Flathead Lake - am incredible natural wonder in the County that also supports the economy through recreation, tourism, and agriculture. Flathead County will help leverage this project into additional nonpoint source reduction projects.	Y
		N
		N
		N
		N
		N

Environmental Justice

Describe your process for identifying, engaging, and providing access for disadvantaged communities to watershed funding, including involvement in the decision-making process and protection from environmental and health hazards within the watershed. **(10 pts)**

The Evergreen Water and Sewer District and its partners have a clearly defined process for identifying, engaging, and providing meaningful benefits to disadvantaged communities. Utilizing the EPA Disadvantaged Communities Map, data from HUD and the Montana Department of Commerce, as well as local first-hand knowledge, the District has identified environmental justice communities within the service area. While the median household income in the Evergreen CDP is $73,015, with 11.9% of the population living below the poverty line, these averages obscure the realities faced by many residents. A few high-income households raise the overall median, but several neighborhoods within the District are composed of lower-income families who face significant challenges.

The maps (attached) show the specific project areas and their low to moderate-income (LMI) percentages; the Shady Lane Septic Tank Replacement Project is in an area with 53% LMI, and the Cynthia Lane and Evergreen School Septic Tank Replacement Projects are in an area with 45.3% LMI. The next map shows the EPA Disadvantaged Community according to the Environmental and Climate Justice Program and most of the Evergreen District is considered a Disadvantaged Community.

As shown on the maps, the Evergreen Water and Sewer District serves a diverse population, including several neighborhoods with lower-income residents. Among these are the East Evergreen Mobile Home Park, Spruce Park Village, Meadow Manor Trailer Court, the Greenwood Trailer Park, and the Ridgewood Terrace Mobile Home Park, home to many families with limited financial resources. This project will target these low-income areas for septic system replacement (specifically, the Cynthia area and Shady Lane area that is adjacent to Meadow Manor Trailer Court). These residents are particularly susceptible to human health contamination because the pipes are often Orangeburg pipe, which are bituminized fiber pipes made from layers of ground wood pulp fibers compressed and bound by water-resistant adhesive (essentially cardboard wrapped with tar paper). These pipes are beyond their useful life and are not appropriate for use in a water-carrying capacity.

In addition, the pipes were usually stubbed up from the ground, and the mobile homes were set on top. However, the piping of the mobile home is 3-inch, and the Orangeburg pipe is 4-inch. There was no mechanism for adequately sealing the connection, so the residents are highly susceptible to sewer contamination in their homes if there is any backup, flooding, or a high groundwater event. This project would replace the septic tanks and the service lines – both from the septic tank to the sewer main in the street and from the septic tank to the home. It is important to note that the District has an easement from the sewer main to the septic tank, which allows for any operational and maintenance needs. Therefore, while the District always works closely with homeowners on project logistics, the District can complete the projects without additional easements or land-owner permissions.

The District plans to replace septic systems at the Evergreen School District Elementary School and the Middle School. Evergreen is a Title I school district with approximately 94% of its students eligible for free or reduced-price meals. In addition to replacing the failing cinder block septic tanks and service lines, the Evergreen Water and Sewer District would partner with the school district on an educational program for the students (see letter of support from Evergreen School District). The education program would result in a greater focus on environmental stewardship in the Evergreen community and underscore the importance of individual responsibility and choices that impact water quality.

The District actively engages community members through outreach to inform and involve them in decision-making processes. This ensures that the projects align with community needs as expressed by the District's customers and deliver equitable health and environmental benefits. By addressing these critical infrastructure deficiencies, the project will significantly improve living conditions, safeguard public health, and reduce environmental contamination for the most vulnerable residents in the Evergreen Water and Sewer District.

Water Quality Impairment Causes and Solutions

The Flathead Lake watershed is not just one of Montana's most stunning natural treasures; it is a keystone environmental, economic, and cultural resource whose health directly affects the well-being of the entire state. As the largest natural freshwater lake in the western United States, the Flathead Lake watershed holds immense ecological significance, supporting diverse ecosystems, pristine water quality, and a unique blend of recreational, agricultural, and cultural activities. Non-point source pollution is the leading cause of water quality issues in Montana, and it endangers this critical resource, making it the most urgent area in Montana to prioritize funding for non-point source pollution removal.

Water quality problems in the Flathead Basin stem primarily from failing septic systems, nutrient contamination, geophysical challenges, and unpermitted septic systems. Aging and outdated septic systems, often over 20 years old, underperform due to improper siting, design, or maintenance[1]. This results in leachate contaminating groundwater and surface water, particularly in high-density areas where soil treatment capacity is inadequate. Contaminants such as nitrogen, phosphorus, bacteria, viruses, pharmaceuticals, and personal care products degrade water quality and aquatic habitats, with excess nutrients fueling harmful algal blooms. Geophysical factors, including shallow groundwater, proximity to surface water, steep slopes, and poor soil conditions, further exacerbate the issue by hindering effective wastewater treatment. Additionally, many older systems installed before permitting (or simply installed without permitting) lack documentation, complicating efforts to assess and address their impacts.

Upgrading or replacing aging septic systems is imperative to address these challenges. Geospatial risk mapping tools, such as GIS-based models, have been used to identify and prioritize high-risk areas for remediation. The 2017 Montana Nonpoint Source Management Plan states that financial assistance is needed to support projects that focus on specific septic system issues. These efforts can mitigate non-point source pollution, protecting the basin's water quality and ecological health.

When restoring and protecting watersheds, addressing nonpoint source pollution from failing and unpermitted septic systems is not just an option—it is the essential first step to address the root cause of the problem - upon which all subsequent restoration efforts depend. While stream and habitat restoration are critical to improving ecological health, their success hinges on addressing the underlying causes of watershed degradation. Aging and unregulated septic systems contribute significantly to nonpoint source pollution, releasing excess nutrients and pathogens into groundwater and surface water. This persistent pollution represents one of the most pervasive and urgent threats to water quality and ecosystem health, undermining the effectiveness of downstream restoration efforts.

Flathead County Water District #1 – Evergreen ("Evergreen Water and Sewer District"), located within the Flathead Basin (and in two different Watershed Restoration Plan Areas—Flathead Lake WRP and the Flathead-Stillwater WRP), is uniquely positioned to benefit from targeted funding to replace failing septic systems. At the largest water and sewer district in the state, most of the service area is found in HUC 10: 1701020802 (City of Columbia Falls – Flathead River). This watershed includes the Flathead River that drains directly to Flathead Lake which is impaired for nutrient pollution (nitrogen and phosphorus). While solving the pollution issues in

[1] Onsite Wastewater Risk Analysis, prepared for the Flathead Basin Commission, January 2022.

Flathead Lake will take more than these proposed projects alone, this project would have a direct and measurable impact on the water quality of one of the state's most important water body's and the educational potion of this project will create water quality ambassadors in the next generation who will continue this important work.

In Evergreen, septic system issues are exacerbated by inadequate soil treatment capacity, high groundwater, and proximity to surface water resources, which increases the risk of pollutants entering local waterways and threatening public health and ecological systems. Using water quality and soil sample data, we can demonstrate considerable water quality improvements directly attributable to these proposed projects.

Given the established risks associated with septic systems and the demonstrated need for sustainable wastewater management, funding to support the Evergreen Water and Sewer District's septic system replacement program represents a strategic and impactful investment. This initiative would safeguard water quality, enhance public health, and contribute to the long-term resilience of the Flathead Basin's natural and economic resources.

ATTACHMENTS

LETTERS OF SUPPORT

Flathead County
Board of Commissioners
(406) 758-5503

Brad W. Abell
Randy L. Brodehl
Pamela J. Holmquist

December 31, 2024

DEQ Headquarters
1520 East 6th Avenue
Helena, MT 59601

Subj: Support for Focus Watershed Grant – Evergreen Water and Sewer District

Dear Program Reviewers,

Flathead County fully supports the grant application submitted by the Flathead County Water District #1 – Evergreen ("Evergreen Water & Sewer District") for the Montana Department of Environmental Quality's Focus Watershed grant. This initiative represents a transformative opportunity to address nonpoint source pollution, restore natural processes, and enhance water quality in our community.

Evergreen has a relatively high percentage of low-income residents, many of whom rely on septic tanks that are aging and failing. The Evergreen Water & Sewer District has identified several septic systems within its boundaries that have leaked into the groundwater. Replacing these septic tanks is essential for preserving groundwater quality and protecting public health. Funding from the Focus Watershed grant would enable the Evergreen Water & Sewer District to carry out these replacements.

The Evergreen Water & Sewer District is ideally positioned to achieve lasting beneficial impacts, given the proximity to pristine surface waters, the high groundwater levels, and the district's service to many low-income customers who may not otherwise be able to afford needed septic system and service line replacements.

Thank you for considering this application and for your commitment to improving Montana's water quality.

Sincerely,

BOARD OF COMMISSIONERS
FLATHEAD COUNTY, MONTANA

Randy L. Brodehl, Chairman

Pamela J. Holmquist, Member

Brad W. Abell, Member

SEAL OF FLATHEAD COUNTY · COMMISSIONERS OFFICE · STATE OF MT.

800 South Main, Room 302 ** Kalispell, MT 59901 ** Fax (406) 758-5861

EVERGREEN SCHOOL DISTRICT NO. 50

18 WEST EVERGREEN DRIVE
KALISPELL, MONTANA 59901
406-751-1111
WWW.EVERGREENSD50.COM

December 26, 2024

To the Administrators of the DEQ's Focus Watershed Grant:

Please accept this letter of support for the grant application submitted by the Flathead County Water District #1 - Evergreen ("Evergreen Water & Sewer District") for the Montana Department of Environmental Quality's Focus Watershed Grant.

Evergreen School District is a K-8 district with approximately 650 students located entirely within the boundaries of Evergreen Water & Sewer District. It is a Title I school district with approximately 94% of its students eligible for free or reduced price meals.

Evergreen School District has septic tanks at both of its school buildings, a junior high and an elementary. Evergreen Water & Sewer District has been financially responsible for the maintenance and replacement of the tanks since the mid 1990s when the public sewer system in Evergreen was installed.

Cindy Murray, General Manager of the Evergreen Water & Sewer District, has advised the Evergreen School District that several of the school tanks do not meet current requirements. Two of the largest tanks are likely constructed of cinder blocks. While a full condition assessment has not been performed on the school tanks, based on the experience of Evergreen Water & Sewer District maintaining the tanks, Ms. Murray advises that these tanks are at the end of their useful lives.

The Evergreen Water & Sewer District has recently become aware that several residential septic tanks within its boundaries installed during the same time period by the same construction company have experienced structural failure and have leaked into the groundwater in the Evergreen community. In the interest of the health of students and staff and of community members who live in the immediate area, both Evergreen Water & Sewer District and the Evergreen School District wish to replace the old septic tanks. The Focus Watershed Grant would provide the funds necessary for the Evergreen Water & Sewer District to do so for all three of the Evergreen School District's buildings. The grant proposal would also replace tanks in the Evergreen community at individual residences in low-income areas, some of which will likely have students in the Evergreen School District. Thus, the Evergreen School District would also benefit indirectly from the fact that many of its underserved students and their families would see the septic tanks at their homes replaced.

In addition to funding the replacement of septic tank infrastructure within the Evergreen School District, some of the grant funds would enable Evergreen School District to partner with the Evergreen Water & Sewer District in the delivery of an educational program to its students and the Evergreen community. This program will provide information about how septic tanks function and what individuals can do to manage prudently their use of the tanks. The program will also educate the community about the risks of septic leachate to the drinking water supplies/groundwater and, ultimately, the Flathead watershed, including Flathead Lake. Finally, the program will provide education about the Human Water Cycle as opposed to nature's water cycle to inform students and residents about the full cycle of water use and water "recycling," which occurs as wastewater is generated in a home, school, or business in Evergreen, is treated, and then disposed of in the Flathead Watershed. Developing a program related to the Human Water Cycle is a critical activity that supports the education goals of Evergreen Water & Sewer District and the Evergreen School District. Such a program should result in a greater focus on environmental stewardship in the Evergreen community and underscore the importance of individual responsibility and choices that impact water quality.

I am proud to support the Evergreen Water & Sewer District and their efforts to make our community a better, more environmentally safe place. Thank you for your consideration.

Sincerely,

Laurie Barron

Dr. Laurie Barron
Superintendent

EVERGREEN
chamber of commerce

January 27, 2024

Dear Program Reviewers:

I am writing this letter, on behalf of the Evergreen Chamber of Commerce, to express my support for the grant application submitted by the Flathead County Water District #1 - Evergreen ("Evergreen Water & Sewer District") for the Montana Department of Environmental Quality's Focus Watershed grant. This initiative represents a transformative opportunity to address nonpoint source pollution, restore natural processes, and enhance water quality in our community.

Evergreen is a community with a relatively high percentage of low-income residents, many of whom have aging and failing septic tanks at their residences. The Evergreen Water & Sewer District has recently become aware that several residential septic tanks within its boundaries have experienced structural failure and have leaked into the groundwater in the Evergreen community. In the interest of the health of the community members that live in the immediate area, Evergreen Water & Sewer District wants to replace the old septic tanks in the Evergreen community. The Focus Watershed grant would provide the funds necessary for the Evergreen Water & Sewer District to do so.

We are particularly excited about the goals and potential of the Focus Watershed program to:

1. Increase the capacity of the Evergreen Water & Sewer District, along with other local organizations and stakeholders, to make meaningful and lasting reductions in nonpoint sources of pollution.
2. Decrease public health risks through the replacement of failing infrastructure
3. Enhance public awareness and community-wide commitment to water quality restoration efforts.

The Evergreen Water & Sewer District, along with their strategic partners are ideally positioned to achieve these objectives due to the number of aging and failing septic tanks in the District, the close proximity to pristine surface water sources, the high groundwater, and the fact that Evergreen serves many low-income customers who, without assistance, may struggle to replace their service lines.

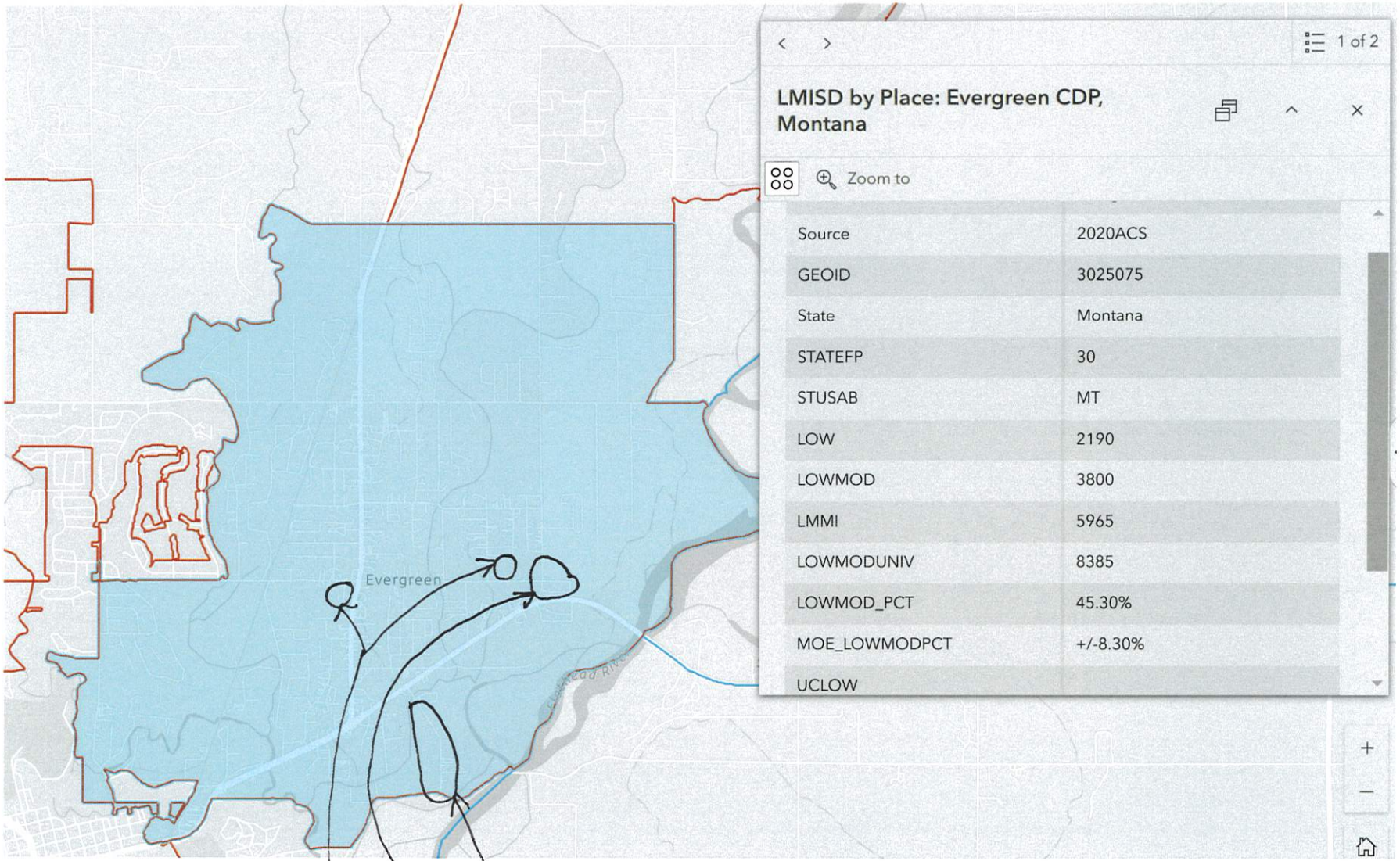
We firmly believe that awarding the Focus Watershed grant to the Evergreen Water & Sewer District will result in significant and lasting benefits for the environment and the businesses and residents of this region. Thank you for considering this application and for your ongoing commitment to improving Montana's water quality. Please do not hesitate to contact me at 406-885-1212 or director@evergreencofc.com if additional information or support is needed.

Sincerely,

Connie McCubbins

Connie McCubbins
Executive Director
Evergreen Chamber of Commerce

PLANNING AND DESIGN DOCUMENTS


1 of 2
LMISD by Place: Evergreen CDP, Montana
Zoom to
Source 2020ACS
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State Montana
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STUSAB MT
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LMMI 5965
LOWMODUNIV 8385
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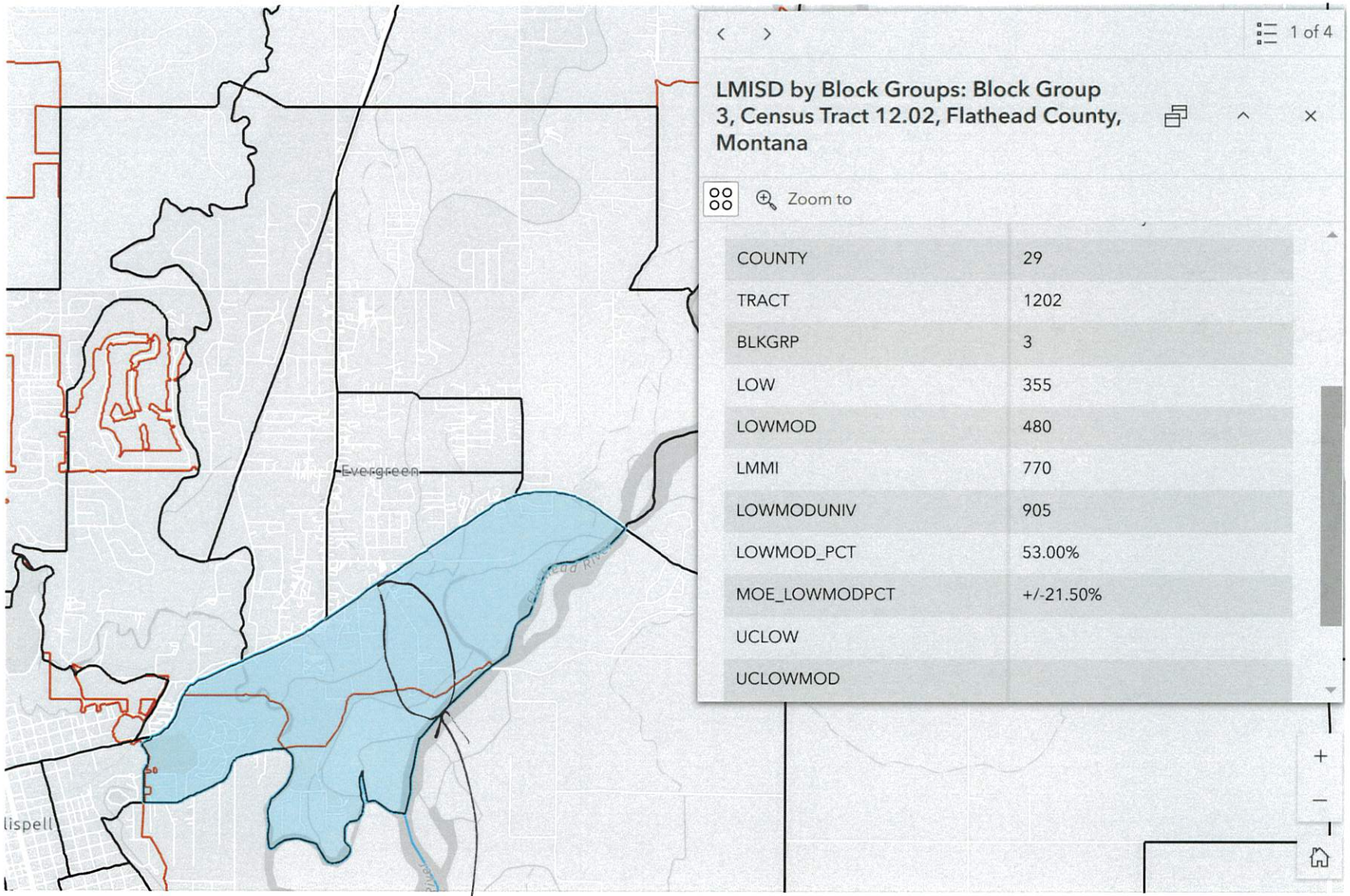
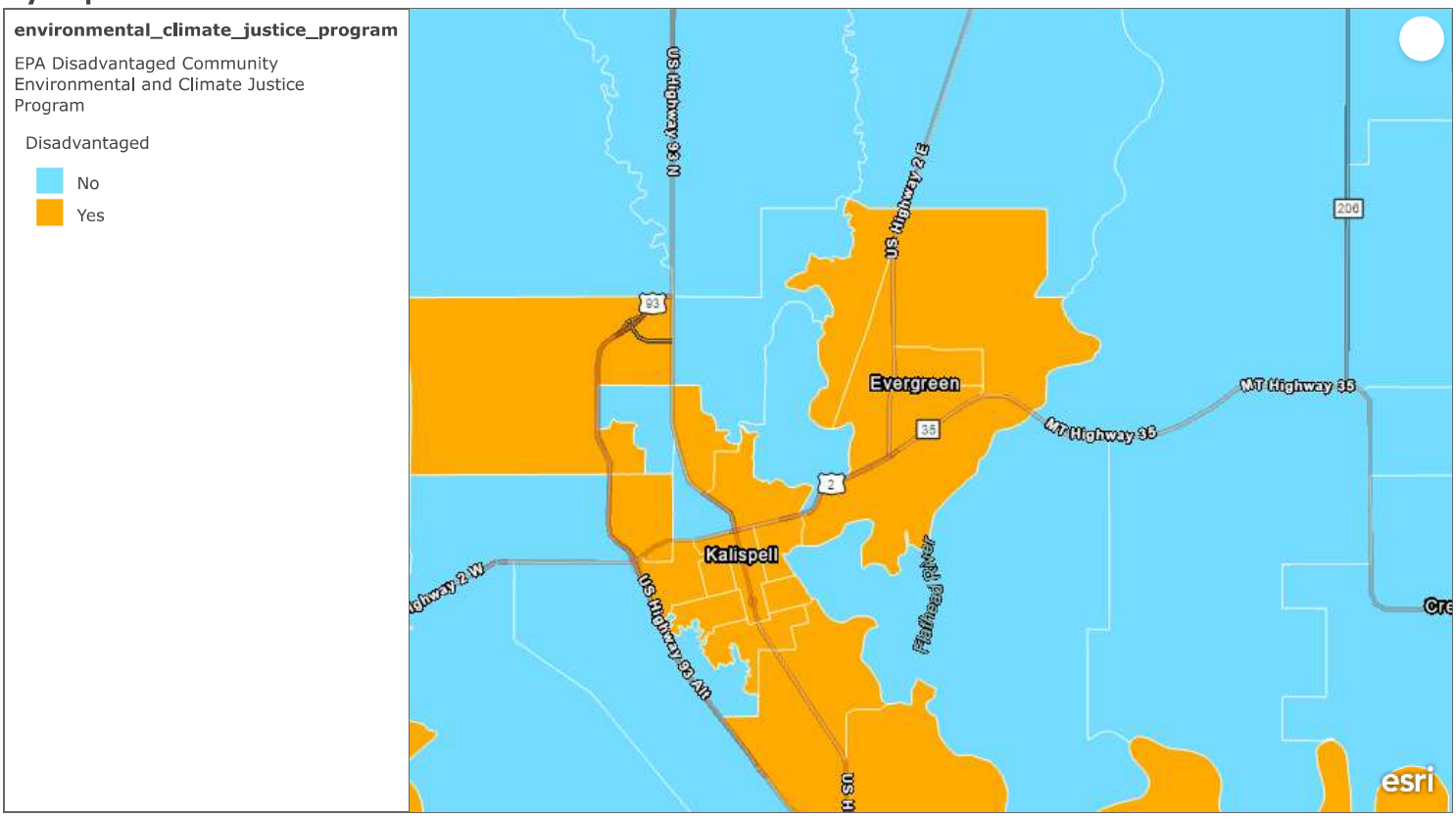
MOE_LOWMODPCT +/-8.30%
UCLOW
Evergreen
Shadylane Tank Replacement
Cynthia Area Tank Replacement
Evergreen School District Tank Replacement



Shadylane Tank Replacement

My Map



Earthstar Geographics | Montana State Library, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

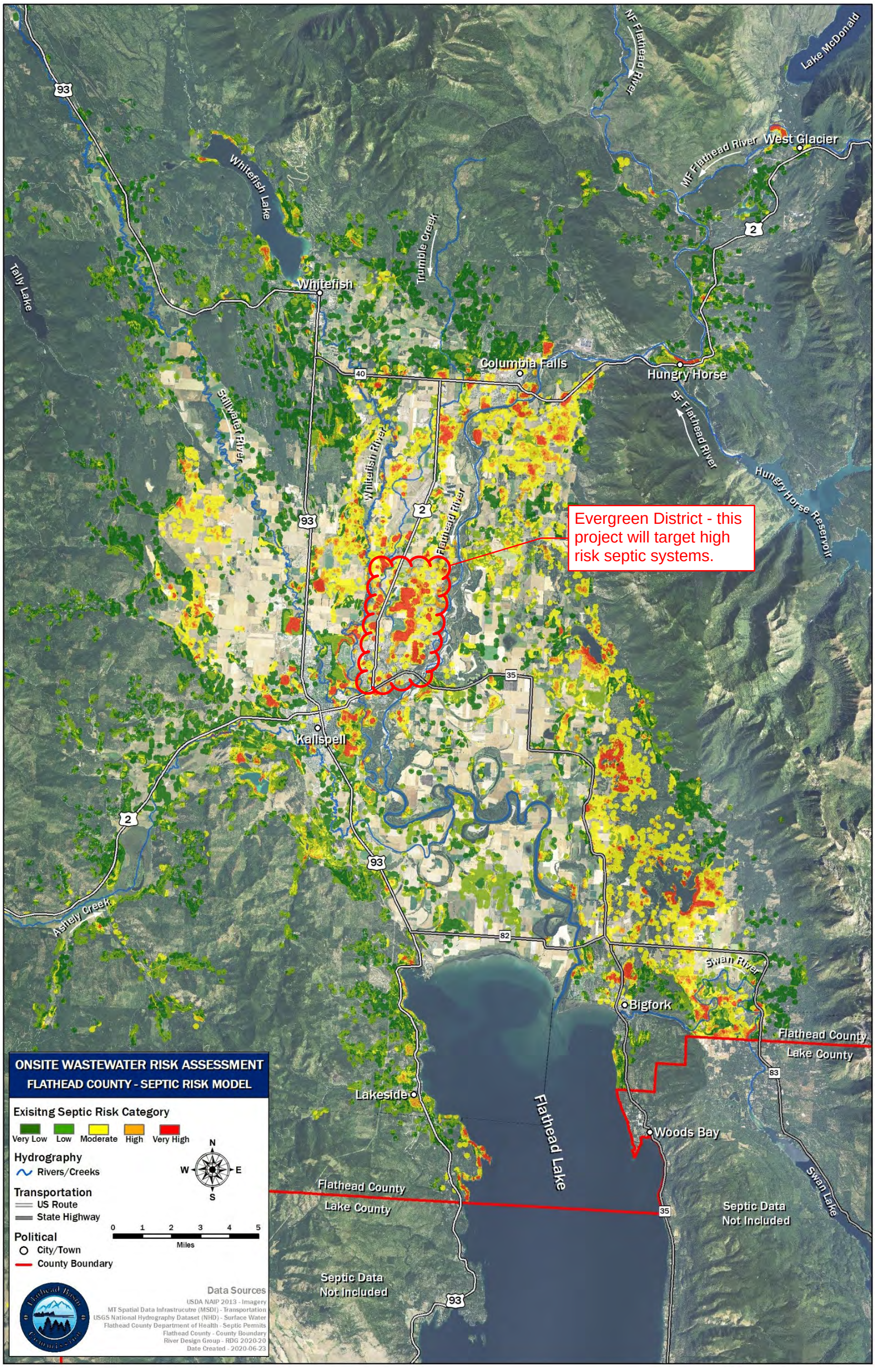


Figure A-13. Existing septic risk model map with areas at higher risk with warmer colors.

d) Wastewater Collection System Alternative Screening (Septic Tank(s))

The District procured the Contractor (A-1) to provide limited septic tank inspections for the engineers' necessary sample data. In total, A-1 provided 23 of the $1,700^{+/-}$ septic tank inspections for review. The engineer and the District also worked on smoke testing in a sample area. While testing with the District, the engineer looked into a few tanks and found no seal between the tank riser and the concrete tank interface, confirming why smoke was rising outside the tank riser. Besides, A-1's limited inspection(s) confirmed the engineer's findings. Also, as per amendment no. 2, the District has decided to replace the septic tanks and the gravity service lines within target areas no. 1 & 2. In addition, the service lines shall be extended from the septic tanks to the face of each mobile home. Then, from the mobile home face, the service has been estimated to run an additional 20 feet as determined by the District staff to the point of connection (POC) beneath the mobile home.

Also, in the Meadow Manner area, smoke billowed from the footprint of each tank. When asked, Mark, with the District, said that these tanks were made out of stacked bricks and are currently on the maintenance list for replacement. As a result, the Meadow Manner tanks have a greater probability of groundwater transmittance into the collection facility than the riser to tank issue, as mentioned above. These tanks should be replaced immediately and placed on the District's highest priority list.

Therefore, due to the situation(s) as mentioned above, the chosen alternatives for the septic tank repairs as evaluated by inspection and smoke testing does not limit the repair option to just open cut or trenchless technologies but is a combination of both technologies as considered below:

i) Alternative ST1-Rehab Existing Septic Tanks (No Action)

(1) Description

This alternative makes no effort to reduce inflow and infiltration or repair the existing collection septic tanks.

(2) Environmental Impacts

Protecting the water quality for the Flathead Watershed is essential to preserving vital habitats and protecting recreational opportunities. The sewer service facilities are compromised by inflow and infiltration (I&I) during high groundwater, and there is likely some degree of exfiltration occurring during low groundwater. Future efforts to repair (I&I) issues should prioritize locations where exfiltration is likely to minimize impacts that potentially affect public health.

(3) Sustainability Considerations

Operating the system with increasing health and safety concerns, including advanced operational costs, is not sustainable as the system continues to age.

(4) Cost Estimates

As the system ages, the added connections dramatically reduce the collection facilities' capacity during high groundwater events while increasing the costs to convey the groundwater.

In summary, the combined economic, social, and environmental impacts from continuing to pump and treat groundwater are not viable, including the public health and safety issue. Thus, this alternative is not feasible and will not be considered any further in this report.

ii) Alternative ST2-Rehab Existing Septic Tanks (Trenchless Technologies)

(1) Description

Trenchless technologies are evaluated to save on capital costs in all areas where it is more cost-effective to make septic tank repairs. In the fall of 2019, Manion Engineering and the District met with a trenchless technology contractor (Cured in Place (CIP)). CIP recommended that an epoxy seal should be placed between the riser interface and the septic tank. The contractor volunteered to perform some testing. The District accepted and spent some time in the field with the contractor for select application(s). Then in 2020, the epoxy was reviewed and accepted by the District as a means for repair.

Again, as mentioned above, Mark with the District concurred that they have approximately 1,700 $^{+/-}$ septic tanks with risers that need repair. However, the District does not know precisely how many split tanks (as termed by Mark) are scattered throughout the District without research. **As a result, additional record research and field observations must be conducted before any construction project.** Mark had mentioned that possibly, the District could hire an intern or other summer help to research the records as it would take quite a bit of time to map it all out. Once this data is collected, the total number of trenchless technology repairs vs. split tank replacements could be estimated. However, moving forward with the riser to tank interface repairs is recommended as it will be many years until the split-tanks are removed from the system. Also, due to amendment no. 2, the number of tanks requiring trenchless technology repairs has also been reduced.

(2) Design Criteria

(a) Circular DEQ 2, Design Standards for Wastewater Facilities

The designer shall follow the design guidelines outlined in Circular DEQ 2 to rehabilitate and retrofit existing septic tank systems.

(b) 40CFR Part 503

The designer shall ensure the standards for the use and disposal of sludge are met during the design and retrofit of facilities.

(c) Regulatory Requirements & Permits

The designer's finished plan set and specifications shall be submitted to MDEQ and any funding agencies for review and compliance with the standards outlined in Circular DEQ 2, 4 &7. The construction of wastewater facilities must adhere to EPA requirements under the Clean Water Act. Additional requirements from the MDEQ must also be followed.

For construction, the following permits may be required:

- Stormwater Discharge Permit administered by the MDEQ
- Groundwater Dewatering Discharge Permit; administered by the MDEQ
- Electrical and plumbing permits will be required for construction
- Building permit
- Additional and or future permits as determined by MDEQ & the EPA

Additional permits, such as a 404 permit, may be required if construction is planned within a wetland, floodplain, stream bank, etc.

For this investigation, the groundwater elevation in the surrounding area is estimated to be 2.3 to 9 feet below the ground surface, depending on the season, based on soil borings collected in the early 1990s geotechnical report by others. Additional Borings or test pits may need to be excavated to determine the seasonal groundwater depth before design and construction under a separate project. Construction operations may

encounter seasonally high groundwater. As a result, the contractor may elect to either dewater the site or perform excavation work during a drier season. These conditions should be managed through the construction contract requirements.

The contractor shall apply for a traffic control permit in traffic areas and shall notify residents 48 hours before work.

The contractor must navigate existing underground utilities with minimal or no disruption. Record drawings of previous construction can be referenced for approximate utility location. A utility locate should be provided, and the utility location mapped on the surface before construction.

(d) Existing Design Flows

See Table 2) C) i (3)-1 Existing Flow Rates above.

(3) Map

Either contracted or by the District staff, additional record research and or field observations need to be conducted for the necessary mapping of the existing septic tanks. As a result, mapping is not shown for the District's septic tank infrastructure.

(4) Environmental Impacts

The construction of this proposed alternative will reduce the probability of wastewater exfiltration into the Flathead Watershed. There are no adverse environmental impacts associated with this alternative.

(5) Land Requirements

The existing septic tanks are on private property; the District has an easement to maintain the tanks. However, if the tank is removed and replaced, a temporary construction easement may be necessary.

(6) Potential Construction Problems

This construction alternative provides for the least amount of impact on the community. No potential construction problems are known at this time.

(7) Sustainability Considerations

This alternative would significantly improve the long-term maintenance and operation of the collection system and sustain growth capacity within the planning period.

(a) Water & Energy Efficiency

This alternative would help reduce groundwater from entering the septic tanks during high groundwater and reduce the energy needed for pumping and treatment.

(b) Green Infrastructure

This alternative provides a means of repairing the existing septic tanks by eliminating open excavation and reducing the project's carbon footprint. Also, the lift stations' operation and maintenance needs will be reduced by removing groundwater from the infrastructure.

(8) Cost Estimates

Detailed cost estimating spreadsheets are presented in Table 4-2 below. The Engineer's Opinion of Probable Costs includes construction, mobilization, bonds, insurance, overhead and profit, contingencies, engineering, and administration costs are listed. The estimated capital cost for repairing 1,601 septic tanks does not

include engineering, geotechnical, or administration for the base project is $642,036. All costs are estimated in 2020 dollars:

Table 4-2 (Rehab Existing Septic Tanks (Trenchless Technology):

Preliminary Engineering Report for Flathead County Water District -1 | Phase I of II
OPINION OF TOTAL PROBABLE PROJECT COST
Year 2020
Project Description: Rehabilitate Existing Septic Tanks (Trenchless Technology)--Probable Estimate

Component Number	Description		Base Project
1	Rehabilitate Existing Septic Tanks (Trenchless technology) --Septic Tank To Riser Interface Repair		$ 452,763
	Year of Original Cost Estimate: 2020		
	Subtotal		**$ 452,763**
	Mobilization/Demobilization/Permits/Bonds and Insurance	5.0%	$ 22,638
	Traffic Control	0.5%	$ 2,264
	Erosion Control	0.5%	$ 2,264
	Testing & Construction Surveying	1.0%	$ 4,528
	Contractor's Overhead and Profit	10.0%	$ 45,276
	Subtotal		$ 529,732
	Montana Public Work's Tax	1.0%	$ 5,297
	Subtotal[1]		$ 535,030
	Miscellaneous Items and Contingencies	20%	$ 107,006
	Total Probable Construction Cost		$ 642,036
	Engineering & Construction Services[2]	20%	$ 107,006
	Legal and Administrative[2]	5.6%	$ 29,427
	Geotechnical Investigation[2]	1.0%	$ 5,350
	Probable Construction, Engineering, Legal & Geotechnical Subtotal[3]		$ 783,819
	Construction Year (Inflation)		
	Probable Average annual inflation rate		3.00%
	Year of Original Cost Estimate		2020
	Year of Anticipated Construction		2022
Factor Table:	**Number of years of Inflation**		2.5
1.0768	**Additional cost of Inflation**		**$ 60,197**
	Total Construction Year Probable Project Cost[3]		**$ 844,016**

Notes: 1. Subtotal. 2. Derived from Subtotal[1] 3. Property Acquisition (Right-of-Way or Additional Property Costs are not Included) 4. Costs do not include surveying, mapping or record research for which address require a septic to riser interface seal or septic tank replacement. The mapping, surveying and record research shall be completed under a separate inspection prior to the said construction project. 5. Costs also do not include additional cost of repairs as found under separate projects or inspections thereto but only include the quantity of sealing the septic to riser interface seal and septic tanks. 6. The total quantity of septic tanks for the septic tank to riser interface and Meadow Manner replacement tanks were provided to the engineer by Mark with the District for probable cost estimation purposes.

For alternative ST2, no estimated annual operation and maintenance (O&M) costs are anticipated to increase the present worth cost. These costs are summarized in Table 4-2A below:

Table 4-2A – ST2-Rehab Existing Septic Tanks (Opinion of Total Present worth Based on O&M)

Opinion of Total Probable O&M Cost, Including 20 YR Present Worth	
Capital Cost (2020)	$783,819
Annual Cost (2020-2040)	$0
Present Worth Factor (3%,20 year)	14.8775
20 yr. Present Worth (2020)	**$783,819**

iii) Alternative ST3- Rehab Existing Septic Tanks (Open Cut Technologies)

(1) Description

All compromised sanitary sewer collection systems that trenchless technologies could not rehabilitate would be excavated and replaced. These septic tanks include tanks made out of cinder blocks and multi-compartment tanks, "Split Tanks" with center tank access per Mark with the District. Again, as mentioned above, Mark with the District has concurred that they have approximately 1,700 $^{+/-}$ septic tanks with risers that need repair. However, the District does not precisely know how many split tanks (as termed by Mark) are within the District's boundary. **As a result, additional record research and or field observations need to be addressed before creating necessary mapping by others for a proposed construction project.** Mark had mentioned that possibly, the District could hire an intern or other summer help to research the records as it would take quite a bit of time to map it all out. Once this data has been collected, the total number of tank replacements could be estimated. This necessary work can be written during PER Phase II. Therefore, the District should make open-cut repairs to the (23) tanks inspected by (A-1) for now. Also, as per amendment no. 2, the District has decided to replace the septic tanks and the gravity service lines within target areas no. 1 & 2. In addition, the service lines shall be extended from the septic tanks to the face of each mobile home. Then, from the mobile home face, the service has been estimated to run an additional 20 feet as determined by the District staff to the point of connection (POC) beneath the mobile home.

(2) Design Criteria

(a) Circular DEQ 2, Design Standards for Wastewater Facilities

The designer shall follow the design guidelines outlined in Circular DEQ 2 to rehabilitate and install wastewater facilities.

(b) 40CFR Part 503

The designer shall ensure the standards for the use and disposal of sludge are met during the design and retrofit of facilities.

(c) Regulatory Requirements & Permits

The designer's finished plan set and specifications shall be submitted to the MDEQ, including any funding agencies, for review and compliance with the standards outlined in Circular DEQ 2, 4 &7. The construction of wastewater facilities must adhere to EPA requirements under the Clean Water Act. Additional requirements from the MDEQ must also be followed.

For construction, the following permits may be required:

- Stormwater Discharge Permit administered by the MDEQ
- Groundwater Dewatering Discharge Permit; administered by the MDEQ
- Electrical and plumbing permits will be required for construction
- Building permit
- Additional and or future permits as determined by MDEQ & the EPA

Other permits, such as a 404 permit, may be required if construction is planned within a wetland, floodplain, stream bank, etc.

For this investigation, the groundwater elevation in the surrounding area is estimated to be 2.3 to 9 feet below the ground surface, depending on the season, based on soil borings collected in the early 1990s geotechnical report by others. Additional Borings or test pits may need to be excavated to determine the seasonal groundwater depth before design and construction under a separate project. Construction operations may

encounter seasonally high groundwater. As a result, the contractor may elect to either dewater the site or perform excavation work during a drier season. These conditions should be managed through the construction contract requirements.

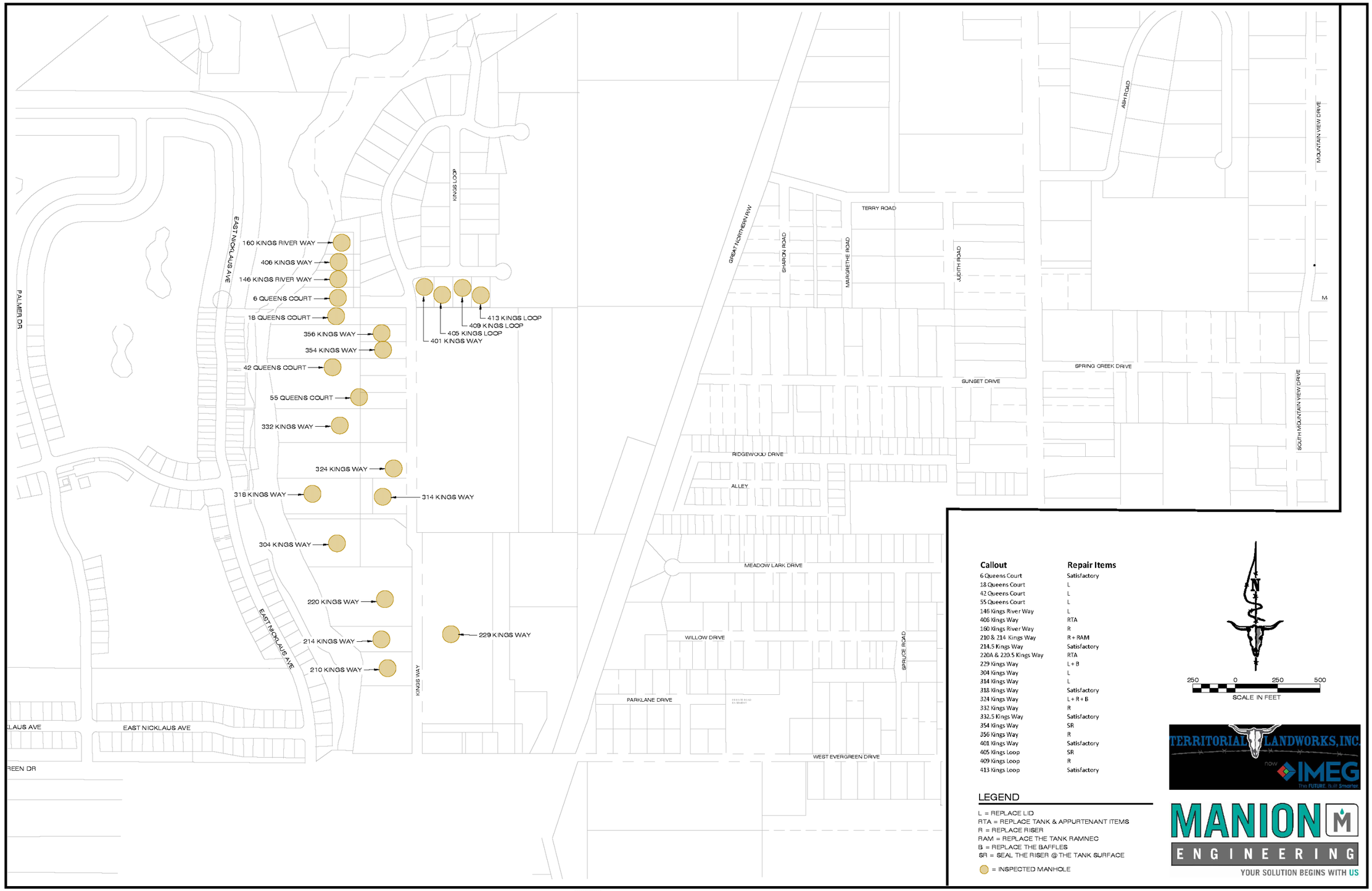
The contractor shall apply for a traffic control permit and notify residents 48 hours before work in traffic areas.

The contractor must navigate existing underground utilities with minimal or no disruption. Record drawings of previous construction can be referenced for approximate utility location. A utility locate should be provided, and the utility location mapped on the surface before construction.

(d) Existing Design Flows

See Table 2) C) i (3)-1 Existing Flow Rates above.

(3) Map (Septic Tank Inspections)



Callout	Repair Items
6 Queens Court	Satisfactory
18 Queens Court	L
42 Queens Court	L
55 Queens Court	L
146 Kings River Way	L
406 Kings Way	RTA
160 Kings River Way	R
210 & 214 Kings Way	R + RAM
214.5 Kings Way	Satisfactory
220A & 220.5 Kings Way	RTA
229 Kings Way	L + B
304 Kings Way	L
314 Kings Way	L
318 Kings Way	Satisfactory
324 Kings Way	L + R + B
332 Kings Way	R
332.5 Kings Way	Satisfactory
354 Kings Way	SR
356 Kings Way	R
401 Kings Way	Satisfactory
405 Kings Loop	SR
409 Kings Loop	R
413 Kings Loop	Satisfactory

LEGEND

L = REPLACE LID
RTA = REPLACE TANK & APPURTENANT ITEMS
R = REPLACE RISER
RAM = REPLACE THE TANK RAMNEC
B = REPLACE THE BAFFLES
SR = SEAL THE RISER @ THE TANK SURFACE

= INSPECTED MANHOLE

N

250 0 250 500
SCALE IN FEET

TERRITORIAL LANDWORKS, INC.
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These photos are from the Cynthia Lane area in 2022. Flooding exacerbates the septic system contamination issues and well as public health risks.


ALLEGRO

Construction Cost - Middle School and High School		$95,000.00
(2~5000 gallon tanks @ $35,000 Ea. And 1~3000 gallon tank @ $25,000)		
Subtotal		
Mobilization/Demobilization/Permits/Bonds and Insurance	5.0%	$4,750.00
Traffic Control	0.6%	$570.00
Erosion Control	0.6%	$570.00
Testing & Construction Surveying	1.2%	$1,140.00
Contractor's Overhead and Profit	10.0%	$9,500.00
Subtotal		$111,530.00
Montana Public Works Tax	1.0%	$1,115.30
Subtotal		$112,645.30
Miscellaneous Items and Contingencies	20.0%	$22,529.06
Total Probable Construction Cost		$135,174.36
Engineering & Construction Services	20.0%	$27,034.87
Legal and Administrative	5.6%	$7,569.76
Geotechnical Investigation	1.0%	$1,351.74
Probable Construction, Engineering, Legal and Geotechnical		**$171,130.74**
Probable Annual Inflation Rate	3.0%	
Year of Original Cost Estimate	2020	
Year of Anticipated Construction	2026	
Number of Years of Inflation	6	
Additional Cost of Inflation		$33,208.31
Total Construction Year Probable Project Cost		$204,339.05

Construction Cost - Septic Tanks Target Area 1		$1,282,235.00
Subtotal		
Mobilization/Demobilization/Permits/Bonds and Insurance	5.0%	$64,111.75
Traffic Control	0.6%	$7,693.41
Erosion Control	0.6%	$7,693.41
Testing & Construction Surveying	1.2%	$15,386.82
Contractor's Overhead and Profit	10.0%	$128,223.50
Subtotal		$1,505,343.89
Montana Public Works Tax	1.0%	$15,053.44
Subtotal		$1,520,397.33
Miscellaneous Items and Contingencies	20.0%	$304,079.47
Total Probable Construction Cost		$1,824,476.79
Engineering & Construction Services	20.0%	$364,895.36
Legal and Administrative	5.6%	$102,170.70
Geotechnical Investigation	1.0%	$18,244.77
Probable Construction, Engineering, Legal and Geotechnical		**$2,309,787.62**
Probable Annual Inflation Rate	3.0%	
Year of Original Cost Estimate	2020	
Year of Anticipated Construction	2026	
Number of Years of Inflation	6	
Additional Cost of Inflation		$448,219.59
Total Construction Year Probable Project Cost		$2,758,007.21

Construction Cost - Septic Tanks Target Area 2		$552,642.00
Subtotal		
Mobilization/Demobilization/Permits/Bonds and Insurance	5.0%	$27,632.10
Traffic Control	0.6%	$3,315.85
Erosion Control	0.6%	$3,315.85
Testing & Construction Surveying	1.2%	$6,631.70
Contractor's Overhead and Profit	10.0%	$55,264.20
Subtotal		$648,801.71
Montana Public Works Tax	1.0%	$6,488.02
Subtotal		$655,289.73
Miscellaneous Items and Contingencies	20.0%	$131,057.95
Total Probable Construction Cost		$786,347.67
Engineering & Construction Services	20.0%	$157,269.53
Legal and Administrative	5.6%	$44,035.47
Geotechnical Investigation	1.0%	$7,863.48
Probable Construction, Engineering, Legal and Geotechnical		**$995,516.15**
Probable Annual Inflation Rate	3.0%	
Year of Original Cost Estimate	2020	
Year of Anticipated Construction	2026	
Number of Years of Inflation	6	
Additional Cost of Inflation		$193,182.20
Total Construction Year Probable Project Cost		$1,188,698.35