DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION

GREG GIANFORTE, GOVERNOR
1539 ELEVENTH AVENUE

STATE OF MONTANA

DIRECTOR'S OFFICE: (406) 444-2074
FAX: (406) 444-2684
PO BOX 201601
HELENA, MONTANA 59620-1601

DECISION NOTICE
ENVIRONMENTAL ASSESSMENT

Project Name:	Livingston Sewer Connection Project
Proposed Implementation Date:	March 2023
Proponent:	City of Livingston
Location:	45.659580, -110.563423
County:	Park County

I. TYPE AND PURPOSE OF ACTION

The City of Livingston is extending the city public sanitary sewer collection system to connect the existing residents in and around the Green Acres and Montague subdivisions. Municipal waste collected from these subdivisions will be treated at the existing City of Livingston wastewater treatment facility. Project construction work will begin February 2023. Project construction is estimated to be completed June 2024.

The City of Livingston is located along I-90 and the Yellowstone River, approximately 25 miles east of Bozeman and 115 miles west of Billings. Maps below show the location of the subdivisions. As part of the City's Capital Improvement Plan (CIP), in February 2020; the City of Livingston annexed the Green Acres Subdivision with the intent to address and eliminate approximately 118 individual tanks and drain fields. In mid-2021, the City annexed the nearby Montague Subdivision, which is in a similar situation to Green Acres with aged individual private septic systems. Existing City sewer infrastructure exists near these two annexed subdivisions. Every property in the project area is too small for a legal and environmentally compliant septic system. Should a septic system fail, by law, the homeowner would have no choice but to connect to the City sewer at his or her own cost or the home would be deemed uninhabitable and face condemnation.

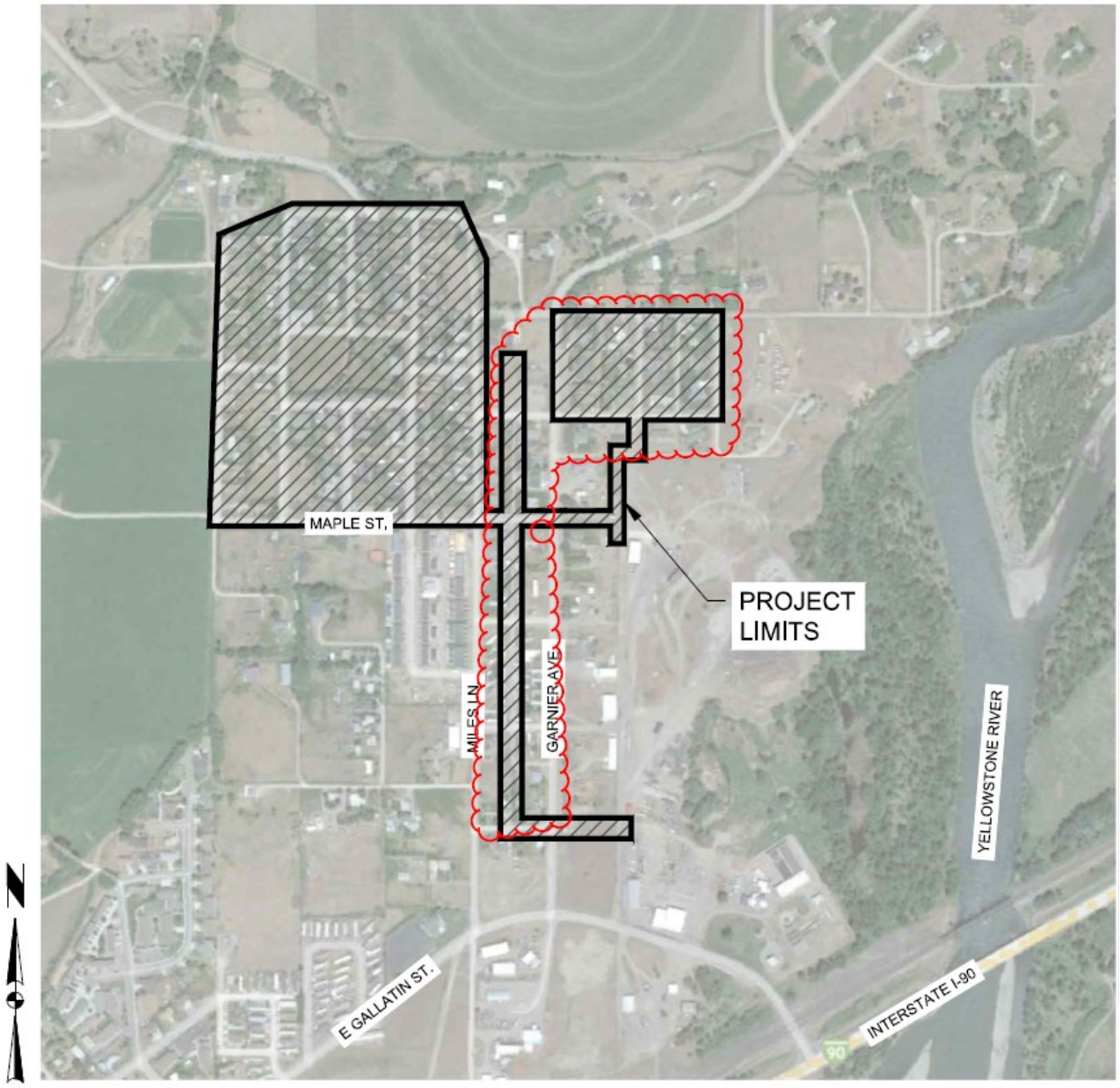
The purpose of this project is to eliminate the individual septic tanks and protect the local aquifer. The existing septic tanks and drainfields will be abandoned. To properly abandon the existing infrastructure, the tanks will be emptied completely and backfilled with the lines capped. Existing city wastewater infrastructure will be extended to connect the subdivisions to the city wastewater system. Construction Tasks including the following items:

- Mobilization, traffic control, protect existing utilities, surface and landscape restoration, project clean-up;
- 152 4-inch sewer wyes and cleanouts;
- 3,200 feet of new 4-inch service pipe;
- 9,550 feet of new 8-inch collection main;
- 3,550 feet of new 10-inch collection main;
- 49 4-foot diameter sewer manholes

A Wastewater Collection System Preliminary Engineering Report (PER) was completed in September 2019. Several alternatives were considered in the PER including the No Action Alternative. The alternative analysis includes consideration of non-monetary factors such as technical and logistical feasibility, operations and maintenance complexity, public health and safety, and environmental impacts.

DNRC will approve the grant to provide funding for the Livingston Sewer Connection Project.

Montague Area MAP



PROJECT LOCATION

NO SCALE

Green Acres Area Map

LIVINGSTON COLLECTION SYSTEM PER LIVINGSTON, MONTANA	TD&H Engineering tdhengineering.com	DRAWN BY: NMR DESIGNED BY: QUALITY CHECK: DATE: 8-13-2019 JOB NO. B18-051 CAD NO. B16-081CIVIC CENTER	FIGURE
GREEN ACRES SUBDIVISION			2-7

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

The City of Livingston has presented the need for wastewater system upgrades at numerous City Commission meetings over the past eight years. A Wastewater Collection System Preliminary Engineering Report (PER) was completed in September 2019. City of Livingston personnel, including Mr. Shannon Holmes - Public Works Director, Mr. Matt Whitman - Project Manager, and Mr. Tom Schweigert - Water/Sewer Foreman were helpful in providing data and other historic information on the system. Their direction guided the recommendations in the PER. The community has shown concern for the potential problems with the aging wastewater systems included in the PER and has a strong desire to address the problem in the way that reduces risk to public health and the environment.

The coordination of the proposed project will take place between local, state, and federal agencies. Most of the project coordination will occur between the City of Livingston, DNRC, and the contracted engineering firm. Regulating agencies will be involved in the permitting process and design to provide input and associated approvals. Project Management will be responsible for facilitation of communication and cooperation between the agencies and organizations involved in the project.

Resolution No. 5011: Authorizing application for competitive Grant Program ARPA and authorizing commitment of matching funds for a Special Improvement District bond for the Livingston Sewer Connection Project was signed and recorded December 2021.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

Stormwater Discharge General Permit – According to Montana State Stormwater Rules, a stormwater discharge permit is required for projects that have a total disturbance greater than 1 acre and that discharge into state waters. Although the potential for any runoff from the proposed construction site to reach state waters is small, a permit will be acquired because there is a hydraulic connection to the Yellowstone River. A Storm Water Pollution Prevention Plan (SWPPP) and a Notice of Intent (NOI) will be prepared and submitted to DEQ for approval prior to construction.

Some construction will occur within he Montana Rail Link Railroad Right-of-Way, and therefore permits through the Montana Department of Transportation will be required for the E. Lewis Street Replacement Project (Alternative 6).

Letters regarding environmental issues were sent to the following agencies requesting comments on the proposed project:

- Department of Environmental Quality Permitting and Compliance Division
- Montana Department of Fish, Wildlife and Parks
- Department of Natural Resources and Conservation
- Montana DNRC
- State Historic Preservation Office
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Bureau of Indian Affairs
- Bureau of Land Management
- U.S. Environmental Protection Agency

A copy of these letters as well as any responses from the environmental agencies is included in Appendix 1 of the Livingston Collection System PER.

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3. ALTERNATIVE DEVELOPMENT:
Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why. Include the No Action alternative.

The City of Livingston conducted an alternatives analysis in Chapter 4 of the PER. The viable alternatives were evaluated based on an organized and systematic approach. This methodology ensures a consistent and unbiased means of prioritizing the alternatives in a way that is most beneficial for the City. Each alternative was evaluated by applying consistent criteria. These criteria include cost, technical and logistical feasibility, operations and maintenance complexity, public health and safety, and environmental impacts. Each viable option was ranked within a decision matrix. The alternative selection process is presented in the following sections.

Nine collection system alternatives were presented in Chapter 4 of the PER:

- Alternative 1- No Action
- Alternative 2- N. 5th Street Capacity Increase
- Alternative 3- Northern Trunk Main Capacity Increase
- Alternative 4- Park Street Capacity Increase
- Alternative 5- W. Geyser Street Capacity Increase
- Alternative 6- E. Lewis Street Replacement
- Alternative 7- Green Acres Subdivision
- Alternative 8- Civic Center
- Alternative 9- Centennial Lift Station

Alternative 1 was eliminated from further discussion as it does not provide a solution to any of the problems within the City's collection system. The remaining eight alternatives, Alternative 2, 3, 4, 5, 6, 7, 8 and 9 are all recommended, and evaluated in the Livingston Collection System PER. The eight alternative have been scored for each criterion, with higher scores indicating the more desirable alternatives.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify direct, indirect, and cumulative effects to soils.

The surrounding area slopes down towards the City of Livingston. There are 31 soil types or complexes within the greater Livingston area. The dominant soils within and adjacent to the project area and throughout the City of Livingston consist primarily of three soils groups: Beaverell-Beavwan soil complex (19.8% of the area, 0 to 2 percent slopes, well-drained), Glendive-McCabe-Rivra complex (14.1% of the area, 0 to 2 percent slopes, occasionally flooded), and Ethridge-Kremlin-Yamacall complex (12.4% of the area, 0 to 8 percent slopes, well-drained). These soil types are classified as nonsaline to very slightly saline, well-drained alluvium (Data acquired from the NRCS Web Soil Survey).

Proposed Alternative – Project work will occur within already disturbed soils in road rights-of-way and on private property. Impact would be potentially beneficial as septic removal will reduce potential leaching in the project area.

No Action – Potentially adverse with the current aging septic infrastructure and associated leaching into groundwater and the Yellowstone River.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify direct, indirect, and cumulative effects to water resources.

The project area is located adjacent to the Yellowstone River within the Lower Yellowstone HUC, which has a mean annual flow ranging from approximately 6,141 ft3 s-1 to 19,780 ft3 s-1 (Source: USGS NWIS website, USGS 06309000 Yellowstone River at Miles City). The Yellowstone River, located within the Upper Missouri River Basin, is listed on the Montana DEQ 303d as fully supporting agricultural beneficial uses, but not fully supporting aquatic life due to fish passage barriers associated with dam construction. Specifically, the Yellowstone River is considered a warm water fishery, but an intake dam partially restricts fish passage.

The Yellowstone is listed as Water Quality Code, 4C, which has been identified as having threats or impairments resulting from pollution categories such as dewatering or habitat modification and, thus, a TMDL has not been required. TDS and salinity concentrations in this reach are relatively low. TSS concentrations tend to be high but are lower than historical levels due construction of Yellowtail Dam (Source: Montana DEQ Search Tools – 2020 Water Quality Information).

Wastewater service will be extended to the Green Acres and Montague Subdivision, which is currently served by area drainfields.

Proposed Alternative – The project is expected to have a long-term beneficial impact to water quality, both locally and regionally. Ground water degradation is expected to decrease as a result of eliminating the septic drainfields, and surface water degradation of the Yellowstone River and associated wetlands is expected to decrease as a result of eliminating the septic drainfields.

A Surface Water Protection Program (SWPP) will be required prior to construction to mitigate storm water runoff from disturbed areas. After construction is complete, storm water mitigation will no longer be applicable.

No Action – Septic systems will continue to age, and leakage and seepage into groundwater and surface waters will continue to be a threat. This presents a long-term adverse impact to overall water quality for the City of Livingston and areas downstream along the Yellowstone River.

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6. AIR QUALITY:

What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc.)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

The proposed project is not located in an air quality Attainment Area, as set by the U.S. Environmental Protection Agency's National Ambient Air Quality Standards. The project area is not listed as impaired in air quality particulates per the Montana DEQ Air Quality Nonattainment Status list (Montana DEQ Air Quality Website visit).

Proposed Alternative – Potentially adverse direct, short-term impacts to air quality from dust associated with construction activities. If excessive dust is generated, the contractor will be responsible for dust abatement through water application and other dust control mitigation measures. No long-term negative impact is anticipated as a result of this project.

No Action – No impact to current air quality.

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7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify direct, indirect, and cumulative effects to vegetation.

The project area is surrounded by approximately 88% private land (estimated using the Montana Natural Heritage Program website), with the remaining 12% on various types of public lands (Bureau of Land Management; US Forest Service; US Government; Montana State Trust Lands; Montana Fish, Wildlife and Parks; Montana Department of Transportation; Local Government). The project area is primarily within Rocky Mountain Lower Montana, Foothill, and Valley Grassland (35%), with Big Sagebrush Steppe (10%), Wetland and Riparian Systems (8%), Forest and Woodland Systems (7%), Human Land Use (Roads, Agriculture, and Developed; 6%, 6%, 7% respectively; see Montana Natural Heritage Program report at the end of this document to view other land cover types, or the MTNHP website). There are ten plant Species of Concern listed for Park County that may potentially occur within the project area (Montana Natural Heritage Program

website) and one candidate threatened and/or endangered plant species listed by US Fish and Wildlife Service that could occur in the county (Whitebark Pine [*Pinus albicaulis*]; USFWS Correspondence).

Proposed Alternative – Potentially beneficial short and long-term impacts to wetland and riparian areas as the proposed project will reduce leakage and seepage of septic contents. Work will occur in disturbed areas within a subdivision. The project will take place within the City Right-of-Way and up to the private property. The project includes surface restoration to repair or restore excavation areas, and no impact to vegetation is anticipated.

No Action – Potentially adverse short and long-term impacts to riparian and wetland area adjacent to the project area if the aging septic systems continue to pose leakage and seepage threats.

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8. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

Project location is identified as a priority area for terrestrial conservation efforts within the Montana State Wildlife Action Plan (SWAP; Yellowstone Terrestrial Focal Area; Montana Fish, Wildlife, and Parks web map GIS data), as well as for aquatic conservation efforts. The Yellowstone River is considered Level 3 Priority with the SWAP for aquatic focal areas (Yellowstone Focal Area). The project area does not fall within an Executive Order – General/Priority habitat area for sage grouse (see attached map; Montana Sage Grouse Habitat Conservation Plan web mapping tool). Though the project area does not appear to be impacting crucial and/or critical habitat areas, there are 114 Species of Concern listed for Park County that may occur in the project area in a broad range of taxa, including bats, birds, reptiles, amphibians, fish, insects, and plants. There are also 19 invasive species potentially present within the planning boundary.

The US Fish and Wildlife Service identified three listed threatened and/or endangered species of vertebrates present in the county that could potentially occur within the project area: Canada Lynx (*Lynx canadensis*), Grizzly Bear (*Ursus arctos horribilis*), and Wolverine (*Gulo gulo luscus*). USFWS stated in an email, dated July 6, 2021, that they have no comments or concerns regarding federally listed species, proposed threatened species, endangered species, or other trust species in the residential area.

Proposed Alternative – Potentially beneficial long-term impact as the project will eliminate contamination concerns and improve water quality in the Yellowstone River for fish, recreation, and wildlife. There is a potential adverse short and long-term impact from invasive species that may be introduced and colonize disturbed areas during or after construction activities.

No Action – There will likely be no impact to the current terrestrial or avian species and habitats given the project is not located within critical and/or crucial habitat areas and will occur within the same footprint. There will continue to be potentially adverse effects to the aquatic species and habitat from septic contamination of the Yellowstone River.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify direct, indirect, and cumulative effects to these species and their habitat.

The National Wetlands Inventory (NWI) website was used to determine whether any wetlands were present within the lands adjacent to the project location (map included at the end of this EA). This search indicated that 24 types of wetlands are present within and adjacent to the project area. There are six types of freshwater emergent wetland, three types of freshwater forested/shrub wetland, six types of freshwater pond habitats, and nine riverine habitats. The Freshwater Emergent wetlands are seasonally flooded, contain vegetation for most of the year, and contain hydrophytic plants. The Freshwater Forested/Shrub Wetlands include all nontidal wetlands dominated by trees, shrubs, persistent emergents, or emergent mosses or lichens. The Freshwater Ponds include deepwater habitats where vegetation grows principally on or below the surface of the water. The Riverine habitats are generally deepwater habitats contained within a channel, permanently flooded, with intermittent and seasonally flooded channels. In addition, the canal itself is labeled as an excavated Freshwater Emergent wetlands area.

As mentioned in the previous section, there are 114 species of concern listed as potentially using the Yellowstone River area as viable habitat. The lower Yellowstone likely provides critical spawning and rearing habitat for multiple native migratory and resident fishes, including sensitive/Species of Concern paddlefish, sauger, blue sucker, sturgeon chub, pearl dace, and endangered pallid sturgeon (Source: Montana Fish, Wildlife, and Parks FishMT). DNRC also used the U.S. Fish and Wildlife Service IPaC tool to generate a resource list summarizing any endangered or threatened species that are known or expected to be near the project area. The IPaC list generated four (4) Federally listed species as potentially occurring in the greater project area: Canada lynx, grizzly bear, North American wolverine, and monarch butterfly (*Danaus plexippus*). It also listed nine (9) migratory birds of concern: Bald Eagle (*Haliaeetus leucocephalus*), California Gull (*Larus californicus*), Cassin's Finch (*Carpodacus cassinii*), Evening Grosbeak (*Coccothraustes vespertinus*), Franklin's Gull (*Leucophaeus pipixcan*), Golden Eagle (*Aquila chrysaetos*), Pinyon Jay (*Gymnorhinus cyanocephalus*), Western Grebe (*Aechomophorus occidentalis*), and Willet (*Tringa semipalmata*; USFWS IPaC report. Date accessed: 02/13/2022). The nine bird species are protected under the Migratory Bird Treaty Act, and the Bald and Golden Eagles are also protected under the Montana Bald Eagle Management Plan, Bald and Golden Eagle Protection Act, and Lacey Act.

Proposed Alternative – The proposed alternative may potentially benefit the species of concern and associated environments, as the proposed project reduce contaminant loads leeching into the Yellowstone River. The project will take place within the City Right-of-Way and up to the private property. The project includes surface restoration to repair or restore excavation areas, and no impact to vegetation is anticipated. Should collection system improvements impact wetland or riverine drainage or fill, or occur within a floodplain, further environmental investigation and reporting will by conducted as necessary, and appropriate mitigation measures and permitting will be pursued (Livingston Collection System PER).

No Action – The unique, endangered, or fragile environmental resources in the project area may be adversely impacted by the no action alternative, particularly the aquatic species, septic contaminants will continue to pose leakage and seepage threats.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine direct, indirect, and cumulative effects to historical, archaeological or paleontological resources.

The State Historic Preservation Office (SHPO) was contacted for the 2021 Wastewater PER Amendment. Mr. Damon Murdo responded in a letter dated March 29, 2021, that a few previously recorded sites are within the project area and that structures over 50 years old are considered historic and potentially eligible for listing on the National Register of Historic Places. SHPO provided a list of sites in the area.

Proposed Alternative – No impact is anticipated. The project will be conducted in City right-of-way and residential yards. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

No Action – No impact to historical or archaeological sites.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify direct, indirect, and cumulative effects to aesthetics.

The Yellowstone River provides recreation opportunities for the public and the proposed project would potentially reduce contaminants. The project work is predominantly on private and City of Livingston-owned property.

Proposed Alternative – The proposed project may have direct, short-term adverse impacts on the aesthetics immediately around the project area during construction. Some nuisance noise and visual impairment will be expected during construction activities, and traffic flow may be disrupted and rerouted. Dust related to construction activities is expected. The contractors will be required to follow any local regulations or ordinances pertaining to the operation of machinery and perform all construction activities during daylight hours to minimize nuisances.

No Action – No impact to aesthetics and no nuisances.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify direct, indirect, and cumulative effects to environmental resources.

Proposed Alternative – The PER states that there is no additional water use or green energy requirements associated with the preferred alternative. No impact is anticipated.

No Action – The No Action alternative would allow the aging infrastructure to continue to age, increasing the risk of contaminant seepage and leakage, which is a potential direct and indirect adverse impact to environmental resources.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Proposed Alternative – No additional environmental documents are expected.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

The City of Livingston's wastewater system contains a network of sanitary sewer mains and lift stations located throughout the City. The collection system conveys raw wastewater to the Water Reclamation Facility (WRF) located on the banks of the Yellowstone River. Leaking sanitary sewer mains allow untreated wastewater to enter the groundwater system and surrounding surface water. The City of Livingston obtains its drinking water from 6 groundwater wells located throughout the water distribution system. As such, the quality of the groundwater is of the utmost importance to the City and its residents. Additionally, the City is located on the banks of the Yellowstone River and is a popular recreation destination. Activities such as floating the Yellowstone and fishing are common. Leaking mains are likely to contaminate the Yellowstone River as the local aquifer recharges the River. To protect the health of local outdoor enthusiasts, the quality of the surrounding surface water must be maintained (Livingston Collection System PER).

Water contaminated with raw wastewater may contain pathogens. There are disease-producing micro-organisms, which include bacteria (such as *Giardia lamblia*), viruses, and parasites. These pathogens can cause gastroenteritis, salmonella infection, dysentery, shigellosis, hepatitis, and giardiasis, all of which can be dangerous to human health. Additionally, extended exposure to nitrogen in drinking water can be damaging or even fatal. Nitrates react directly with hemoglobin in humans and other warm-blooded animals to produce methemoglobin. Methemoglobin destroys the ability of red blood cells to transport oxygen. This condition is especially serious in babies. It caused a condition known as methemoglobinemia or "blue baby syndrome". Since the City obtains its drinking water exclusively from the local aquifer and many people recreate in and around the Yellowstone River near Livingston, groundwater and surface water contamination is a potentially serious health issue (Livingston Collection System PER).

Proposed Alternative – The proposed project is expected to have an overall beneficial impact to human health and safety by eliminating individual septic systems and decreasing the risk of seepage and leaking. No suspect paints or building materials are anticipated for the planned project. If suspect paints or materials are impacted, a certified inspector will conduct an inspection, and any necessary abatement activities will be completed prior to construction. Environmental

databases were consulted to see if any existing NPL sites, Hazardous Waste Cleanups, or LUST sites may impact the project area. None of these identified sites are expected to impact the project based on their location and the associated distance from the project area.

No Action – The No Action alternative poses a direct adverse impact as the aging infrastructure continues to age, increasing the risk of contaminant seepage and leakage. This is a potential direct adverse impact to human health and safety.

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15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Work will occur within the City of Livingston, in Park County, Montana.

Proposed Alternative – No impact is anticipated. No commercial or industrial facilities will be impacted by the proposed project. The project will take place on previously disturbed land. Land will be restored to pre-construction condition, or better, after project completion. The project will not result in displacement or relocation of businesses or residents. The project will not affect land use compatibility, land use changes, development activity, or land uses and potential conflicts.

No Action – A potential adverse impact to agricultural activities, both direct and indirect, if the aging septic systems remain in place and continue to pose a contamination threat to the Yellowstone River. Agricultural lands downstream of Livingston draw water from the Yellowstone River to water crops and could potentially draw contaminated water.

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16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.

The project is located within the city limits of the City of Livingston, the largest city of Park County, Montana. The population for Park County was 17,473 in 2021, with 8,386 people residing in the City of Livingston. The project focuses on removal of antiquated individual septic systems, routing waste from the previous septic users into the main city wastewater system, and installing the necessary related infrastructure to do so.

Proposed Alternative – A short-term beneficial impact to local jobs and economic benefit is anticipated. The project will employ short-term contractors and suppliers. Long term employment and income patterns are not likely to be impacted by the project.

No Action – No impact to the quantity and distribution of employment.

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17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

Eight improvements were recommended and prioritized as a result of the Preliminary Engineering Report analysis. The recommended improvements were selected to increase capacity in deficient areas, repair and replace high-risk mains, and eliminate area drainfields. Projects costs range from $474,000 to $4.3 million. The larger projects may be scaled down to fit the City's financial needs if

necessary. It is recommended that the City pursue financial aid through grant and low interest loans to avoid an increase in taxes to the City's users.

Proposed Alternative – No impact is anticipated. The City is planning to pay for this project using an American Rescue Plan Act (ARPA) grant monies and local funding without loans to avoid an impact on local user rates.

No Action – The No Action alternative could have a short-term adverse impact to current septic users, who would bear the burden of financial responsibility when septic systems fail.

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18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify direct, indirect, and cumulative effects of this and other projects on government services

The project will occur within City of Livingston right-of-way and residential areas which do not include education facilities, medical services or park, playgrounds, or open spaces. The project is expected to disrupt traffic flow and alter traffic patterns, as much of the proposed work will occur on City roads.

Proposed Alternative – Short-term adverse impacts can be expected due to restricted traffic access during construction. Localized impacts may include emergency medical access, but can be mitigated by construction practices inducing a health and safety plan and efficient detours for traffic flow. No impact is anticipated to fire protection, police, or schools.

No Action – No impact on the demand for government services.

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19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

The project will be coordinated with all applicable local, state and federal agencies. Local cooperation and regulatory permits will come from the City of Livingston and other regulatory permitting agencies associated with these wastewater system improvements.

Proposed Alternative – The City of Livingston referenced the following planning documents in preparation for this project:

- City of Livingston Growth Policy, 2017
- City of Livingston 2018 Community Improvement Plan (CIP), 2018
- City of Livingston Water Master Plan (Draft), TD&H Engineering, 2019

No Action – The No Action alternative poses a direct adverse impact as the aging infrastructure continues to age, increasing the risk of contaminant seepage and leakage. This is a potential direct adverse impact to environmental conditions, which could negatively impact environmental plans and goals.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify direct, indirect, and cumulative effects to recreational and wilderness activities.

The Yellowstone River provides diverse recreational opportunities for the public. The project area is located adjacent to the main recreational corridor of the Yellowstone River, primarily on private land. There are multiple public fishing access sites upstream and downstream of the project area. There are also recreational access points at county/city bridge crossings.

Proposed Alternative – The project is expected to have a regional, long-term benefit to recreation as a result of improved water quality in the Yellowstone River. The proposed project will extend City sewer service to the Green Acres and Montague Subdivisions, which currently use private wastewater disposal systems. The existing private wastewater systems are approximately 0.5 miles upgradient to the Yellowstone River and are contributing to nutrient loading to the river.

No Action – The No Action alternative poses a direct adverse impact as the aging infrastructure continues to age, increasing the risk of contaminant seepage and leakage. This is a potential direct adverse impact to water quality and recreational activities on the Yellowstone River.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify direct, indirect, and cumulative effects to population and housing.

Population trends for the area were reviewed to gain a better understanding of past growth in the area. Population information published by the United States Census Bureau and the American Communities Survey (ACS) were summarized along with the calculated annual growth rates. The City of Livingston and Park County have experienced rapid population shifts at times as a result of the railroad industry boom and decline. The City has experienced consistent annual growth around 0.25% since 1990. Park County saw rapid population growth from 1970 to 1990; the County's growth has decreased in recent years with the US Census data reporting a negative growth rate in the early 2000. Due to the recent population boom in the neighboring Gallatin Valley, an annual growth rate of 0.25% is not considered reasonable for projecting the City of Livingston's 20-year design population and average day flow rates. It is considered likely the Park County and the City of Livingston will expect growth similar to the nearby Gallatin County.

The recent wastewater treatment plant PER published by Stahly Engineering in 2014, reported a 2030 design population of 10,500 persons. That that will require a 2.6% annual growth rate within the City. Given the recorded growth in the neighboring Gallatin County, an annual growth rate of 2.6% is considered a reasonably conservative estimate. Population growth may be lower than projected if economic conditions decline or significantly higher for many unforeseeable and unpredictable reasons. Growth projections should be reviewed on an annual basis to determine when improvements recommended to serve population growth are required. Projected population and average day flow rates are increasing. The recent upgrades for the City's wastewater treatment facility (WWTF) included an average day design flow rate of 1.21 MGD in year 2035. The proposed 2.6% annual growth rate will result in an average day flow of 1.27 MGD in 2035. The proposed growth rate results in a slightly higher flow and more conservative design. The recommended design average day flow rate for the 20-year design period is 1.44 MGD in year 2040. The City approved the growth rate in a May 5, 2019 e-mail, available in the Livingston Collection System PER.

The City of Livingston's gravity collection system contains sections with capacity issues. This is particularly true upstream of and including the N. 5th Street railroad crossing. Significant capacity issues were modeled with existing flows and are further exacerbated with the additional flows projected for the 20-year design life. Insufficient conveyance capacity was also indicated along E. Park Street, W. Geyser Street, and E. Gallatin Street. Without adequate capacity, sewers cannot safely transport raw wastewater to the WRF. Additionally, as the area along the western extent of the City's wastewater system grows, sanitary flows to the Centennial lift station are expected to exceed the station's design capacity. Insufficient capacity in the gravity collection system and lift stations can result in untreated sewage backing up within the collection system, flooding from manholes or into residential and high traffic building. This is not only unsafe due to the pathogens present in wastewater but can also result in sever property damage. Adequate conveyance capacity is imperative for any wastewater system and upsized mains are recommended.

Proposed Alternative – No impact is anticipated. The project will be designed to handle the projected peak hour flow rate for the City of Livingston for a 20-year design life.

No Action – With population trends increasing, it is likely the No Action alternative would have an overall adverse impact to the greater Livingston area, as population would outgrow wastewater system capacity.

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22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Park County is largely made up of rural, cultivated cropland and/or Great Plains mixed grass prairie (Source: Montana Natural Heritage Program). The agricultural way of life provides the most common type of lifestyle/community for the county.

Proposed Alternative – No impact is expected to change social structures and/or lifestyles from the project, but rather enhance the current communities and lifestyles. By ensuring stable wastewater disposal, the City of Livingston will be able to conserve one of Montana's most treasured resources, water. Increased efficiency of wastewater and reduction of contamination will create benefits locally, regionally, and statewide in the form of improved recreational opportunities and economic impacts.

No Action – No impact to social structures is likely given the nature of project locations and is not currently impacting native or traditional lifestyles.

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23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

The Yellowstone River and agricultural lands sustain the way of life for Park County and the greater Livingston area, providing fishing and boating recreational activities and local and regional food supply for the overall area.

Proposed Alternative – No impact is expected to the cultural uniqueness and/or diversity to the project area; however, there may be beneficial impacts to the Yellowstone River as the proposed alternative will reduce contaminant leakage and nutrient loading.

No Action – No impact to cultural uniqueness or diversity resources.

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24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.

The City of Livingston upgraded the wastewater treatment system and was designed to meet projected 2035 sanitary flows and sufficient capacity to include wastewater flows from Green Acres and Montague Subdivision.

Proposed Alternative & No Action– Potentially no impact given the nature of the project is a replacement of aging infrastructure and expansion of existing wastewater systems and does not increase or decrease water availability or use. No additional income would be expected to occur as a result of this project.

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25. DRINKING WATER AND/OR CLEAN WATER

Identify potential impacts to water and/or sewer infrastructure (e.g., community water supply, stormwater, sewage system, solid waste management) and identify direct, indirect, and cumulative effects likely to occur as a result of the proposed action.

Sewer/Sanitation/Storm Water
The City of Livingston would extend solid waste management and wastewater treatment facility service to areas that currently operate on small septic systems and drainfields. The existing private septic wastewater systems will be taken out of service; generated wastewater will be conveyed to the existing municipal wastewater system. The wastewater from this area will undergo a higher level of treatment and the City wastewater treatment plant, and this will benefit the ground water and surface water quality in the area. The project areas are within City road Right-of-Ways and on private property.

Drinking Water/Fire Protection
The project area is within the City of Livingston and has direct impact to drinking water. Ground water and surface water are at risk of contamination from the antiquated septic systems, as the aging infrastructure fails, and leaks and seeps contaminated wastewater into surrounding water sources. Fire Protection is already established across the city and connected to the water main system.

Proposed Alternative – The proposed project has the potential to have a long-term beneficial impact to public access to sanitary sewer service, surface waters, and drinking water sources by eliminating leaking septic systems and associated drainfields. The project will also have the potential for direct beneficial impacts on solid waste management and wastewater treatment, as the wastewater system is upgraded, and new areas are brought into the wastewater system. and clean water as a result.

The proposed project has the potential to have direct, short-term adverse impacts to water quality. If ground disturbance for the proposed project is equal to or greater than 1 acre, the contractor is required to obtain and comply with Montana DEQ's General Permit for Storm Water Discharges Associated with Construction Activities. This permit requires BMPs to be implemented to minimize sediment-laden runoff from reaching a water of the state (in this case, the Yellowstone River), inspections of the BMPs, and rehabilitation of the area post construction.

No Action – The No Action alternative poses a direct adverse impact as the septic infrastructure continues to age, increasing the risk of contaminant seepage and leakage. This is a potential direct adverse impact to drinking water aquifers and clean water access from the Yellowstone River.

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26. ENVIRONMENTAL JUSTICE

Will the proposed project result in disproportionately high or adverse human health or environmental effects on minority or low-income populations per the Environmental Justice Executive Order 12898? Identify potential impacts to and identify direct, indirect, and cumulative effects likely to occur as a result of the proposed action.

According to the 2015 American Community Survey, the City of Livingston has a Low and Moderate Income (LMI) Percent of 42.19%. According to the 2019 American Community Survey, the City has an LMI of 42.2%.

Proposed Alternative – The proposed improvements are expected to have a beneficial impact to all users of the Subdivisions. An ARPA grant, in combination with local funds (including Special Improvement District (SID) funds) and other grants are being pursued in avoid a user rate increase. The complete project will include the Green Acres and Montague subdivisions expansion. The proposed project will greatly improve the general housing conditions in the subdivisions. Wastewater system improvements will provide wastewater service to an area that currently does not have it. The subdivisions currently use private septic tanks and drain field, many constructed prior to 1980.

No Action - The No Action alternative poses a potential adverse impact to the subdivision residents, as the septic infrastructure continues to age and increases the risk of contaminant seepage and leakage. This is a potential direct adverse impact to human health of minority or low-income populations.

EA Prepared By:	**Name:**	Samantha Treu	**Date:**	February 10, 2022
	Title:	MEPA/NEPA Coordinator	**Email: s**amantha.treu@mt.gov	

V. FINDING

27. ALTERNATIVE SELECTED:

The below eight alternatives, Alternative 2, 3, 4, 5, 6, 7, 8 and 9 are all recommended, and evaluated in the Livingston Collection System PER. The eight alternative have been scored for each criterion, with higher scores indicating the more desirable alternatives.

- Alternative 2- N. 5th Street Capacity Increase
- Alternative 3- Northern Trunk Main Capacity Increase
- Alternative 4- Park Street Capacity Increase
- Alternative 5- W. Geyser Street Capacity Increase
- Alternative 6- E. Lewis Street Replacement
- Alternative 7- Green Acres Subdivision
- Alternative 8- Civic Center
- Alternative 9- Centennial Lift Station

The primary alternative being funded by the DNRC's ARPA Grant Program is the Green Acres Subdivision, Alternative 7. This alternative requires that other Alternative be accomplished in order to connect the subdivision to the City's wastewater collection system.

28. SIGNIFICANCE OF POTENTIAL IMPACTS:

Minor, short-term, local environmental and social impacts will be mitigated with carefully planned construction best management practices. The project will likely have long-term beneficial impacts to water quality, health and safety and public access to sanitary sewer.

Air Quality

Potentially adverse direct, short-term impacts to air quality from dust associated with construction activities. If excessive dust is generated, the contractor will be responsible for dust abatement through water application and other dust control mitigation measures. No long-term negative impact is anticipated as a result of this project.

Terrestrial, Avian, and Aquatic Life and Habitats

Potentially beneficial long-term impact as the project will eliminate contamination concerns and improve water quality in the Yellowstone River for fish, recreation, and wildlife. There is a potential adverse short and long-term impact from invasive species that may be introduced and colonize disturbed areas during or after construction activities.

Aesthetics/Noise

The proposed project may have direct, short-term adverse impacts on the aesthetics immediately around the project area during construction. Some nuisance noise and visual impairment will be expected during construction activities, and traffic flow may be disrupted and rerouted. Dust

related to construction activities is expected. The contractors will be required to follow any local regulations or ordinances pertaining to the operation of machinery and perform all construction activities during daylight hours to minimize nuisances.

Demand for Government Services

Short-term adverse impacts can be expected due to restricted traffic access during construction. Localized impacts may include emergency medical access but can be mitigated by construction practices inducing a health and safety plan and efficient detours for traffic flow. No impact is anticipated to fire protection, police, or schools.

Drinking Water and/or Clean Water

The proposed project has the potential to have direct, short-term adverse impacts to water quality. If ground disturbance for the proposed project is equal to or greater than 1 acre, the contractor is required to obtain and comply with Montana DEQ's General Permit for Storm Water Discharges Associated with Construction Activities. This permit requires BMPs to be implemented to minimize sediment-laden runoff from reaching a water of the state (in this case, the Yellowstone River), inspections of the BMPs, and rehabilitation of the area post construction.

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29. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS	[ ] More Detailed EA	[X] No Further Analysis	

EA Approved By:	**Name:** Mark W Bostrom **Title:** Division Administrator	
Signature: DocuSigned by: Mark W Bostrom BF7A1C50B2AF4DE...	**Date**: 3/2/2023 | 1:56:09 PM MST	

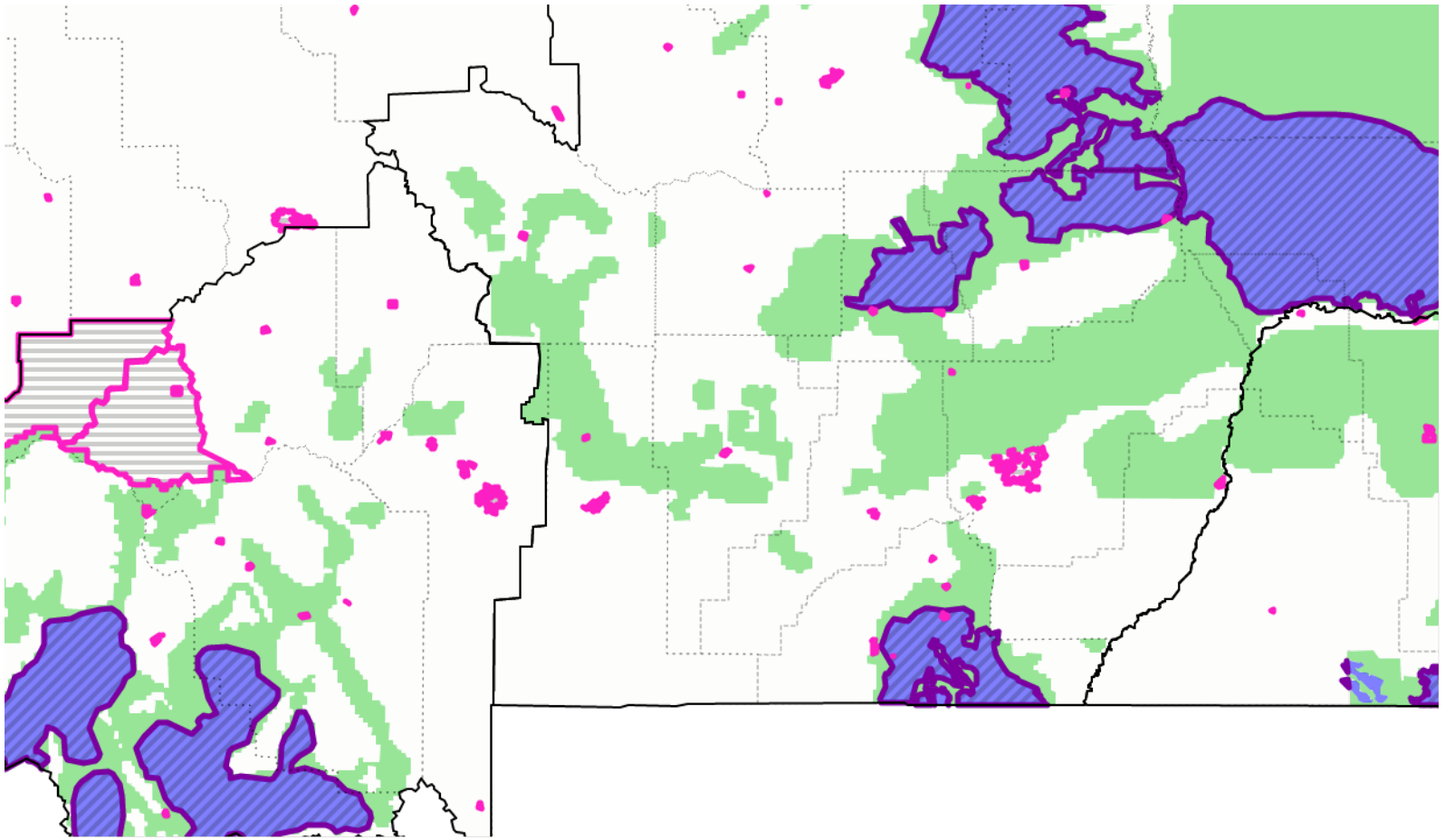

Figure 1. Montana Sage Grouse Habitat by County

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Park County, Montana

Local office

Montana Ecological Services Field Office

(406) 449-5225
(406) 449-5339

585 Shephard Way, Suite 1

Helena, MT 59601-6287

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Canada Lynx Lynx canadensis There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3652	Threatened
Grizzly Bear Ursus arctos horribilis There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/7642	Threatened
North American Wolverine Gulo gulo luscus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31

California Gull Larus californicus — Breeds Mar 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cassin's Finch Carpodacus cassinii — Breeds May 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9462

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Franklin's Gull Leucophaeus pipixcan — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Pinyon Jay Gymnorhinus cyanocephalus — Breeds Feb 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9420

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Willet Tringa semipalmata — Breeds Apr 20 to Aug 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and

understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

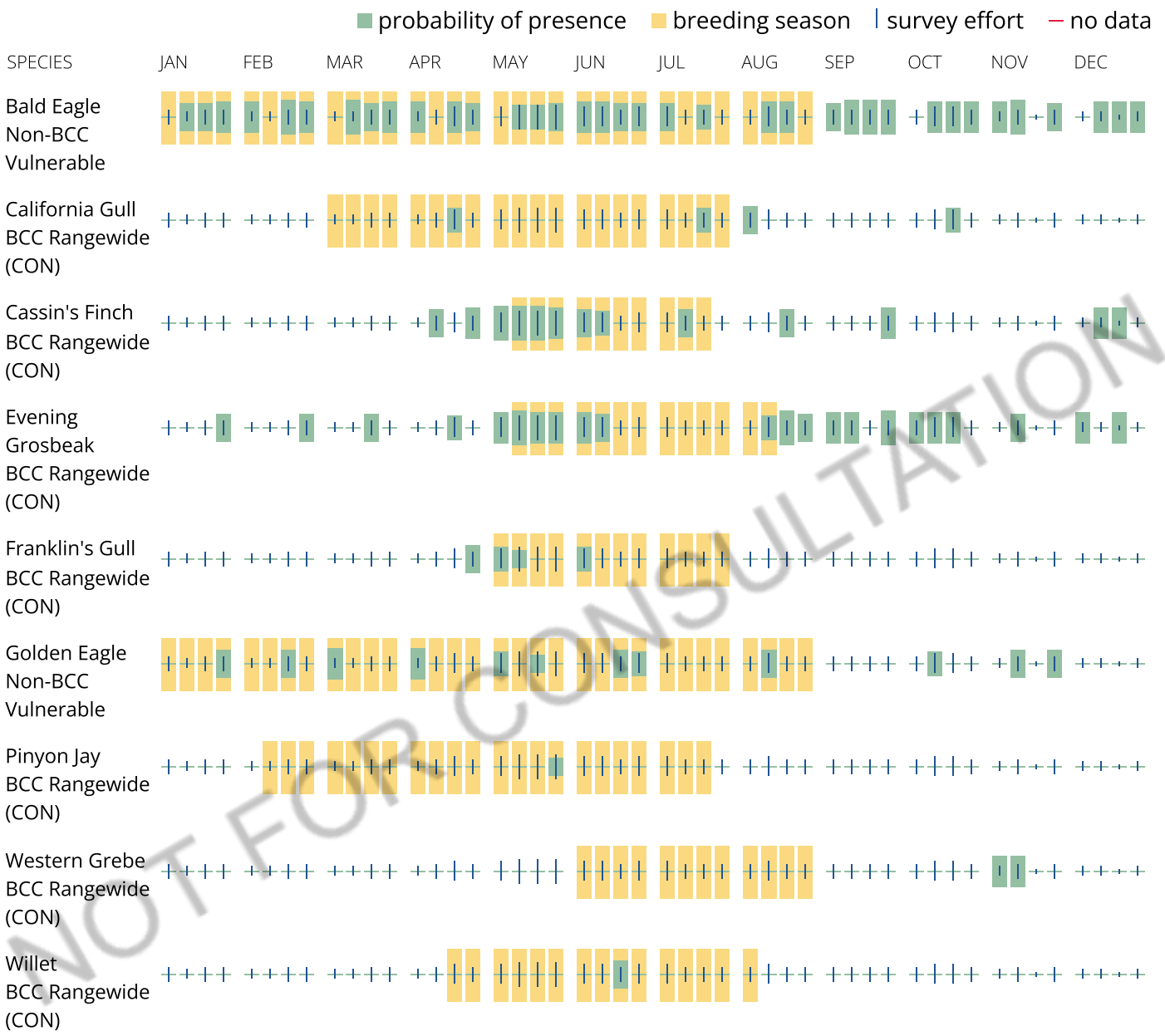
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1Cx
- PEM1C
- PEM1Fx
- PEM1Ch
- PEM1Fh

FRESHWATER FORESTED/SHRUB WETLAND

- PSSA
- PSSC
- PFOA

FRESHWATER POND

- PABGh
- PABF
- PABFh
- PABG
- PABKx
- PUBFx

RIVERINE

- R3UBH
- R3USA
- R4SBC
- R4SBCx
- R3USC
- R5UBH
- R3UBF
- R5UBFx
- R3UBG

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site. Other limitations, exclusions, and precautions are listed below.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND
- PEM1A
- PEM1Cx
- PEM1C
- PEM1Fx
- PEM1Ch
- PEM1Fh

FRESHWATER FORESTED/SHRUB WETLAND
- PSSA
- PSSC
- PFOA

FRESHWATER POND
- PABGh
- PABF
- PABFh
- PABG
- PABKx
- PUBFx

RIVERINE
- R3UBH
- R3USA
- R4SBC
- R4SBCx
- R3USC
- R5UBH
- R3UBF
- R5UBFx
- R3UBG