Pre-Concept Report

Plantation Island Bridge/Path Replacement

Prepared for:

Ada County
Development Services

and

Community Planning Association of Southwest Idaho

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Garden City, Idaho

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Introduction

The north and south channel Plantation Island bridges are critical north-south connections over the Boise River for the Boise River Greenbelt (Greenbelt) in Garden City and West Boise. The two separate bridges span the river's north and south channels via Plantation Island. **Figure 1** shows the bridges and Greenbelt in relation to Plantation Island and the Boise River.

Both bridges and the island are owned by the Idaho Foundation for Parks and Lands. On April 3, 2017, Ada County funded the removal of the bridge crossing the south channel between the west end of Plantation Island and the south side of the river near the northeast corner of the fairgrounds (Expo Idaho) due to extensive erosion caused by high water flows on the Boise River. During that event, parts of Plantation Island eroded away along with part of the Greenbelt. This caused damage to the bridge's island abutment, and parts of it broke loose and fell into the river.

The Idaho Foundation for Parks and Lands secured funding through the Federal Emergency Management Administration (FEMA) to armor the island with riprap to prevent further erosion, repair the Greenbelt, repair the bridge abutments, and place the bridge back in its original location. On March 25, 2019, the bridge reopened to the public, reestablishing the north-south connection of the Greenbelt.

Given the location of the bridge abutment on the island, it is likely the bridge may need to be removed again in the future should another high-water event erode more of the land away. Therefore, Ada County acquired a project development grant from the Community Planning Association of Southwest Idaho (COMPASS) to look at viable options for relocating the south channel bridge and/or replacing it with a new one. This pre-concept report documents the existing conditions of the project area, identifies the alternatives considered, and describes a preferred alternative for future design and construction.

Summary of the Preferred Alternative

A new, pre-engineered prefabricated steel truss bridge will connect Plantation Island to the south bank of the Boise River, placed at least 170 feet south of where the existing bridge abutment connects to the Greenbelt on the south bank. Work will include delivery and setting of a contractor-designed prefabricated bridge and its components, bridge abutments consisting of a mechanically stabilized earth (MSE) wall with geogrid reinforcement, and reinforced cast-in-place concrete footings. Approximately 165 feet of new Greenbelt will be constructed on Plantation Island, and the connection of the bridge with the Greenbelt on the south side of the river will be improved to provide better Americans with Disabilities Act (ADA) compliant access. Wayfinding signage will be added to the south bank access to help guide bicyclists and pedestrians to/from the Greenbelt and its roadway network connections at E. Remington Street.

The total project cost is estimated at $739,000, including $513,000 for construction, $62,000 for preliminary engineering and design, and $164,000 for mobilization, construction engineering, and contingencies.

Figure 1. Project Vicinity Map

Project Narrative

Background

The Boise River Greenbelt (Greenbelt) is a 25-mile, tree-lined pathway that follows the Boise River, connecting three cities (Eagle, Garden City, and Boise). It was created over several decades by slowly piecing together a patchwork of land along the river using several methods of acquisition, including purchase, exchange, leasing, and receiving donations of property by individuals, civic groups, and corporations.

Before 1990, the north and south sides of the Greenbelt in Boise were connected by several bridges with the north side of the river serving as the primary route west of Veterans Parkway Bridge. Due to the Plantation Golf Course's location adjacent to the north side of the river, the Greenbelt pathway ended at a residential development adjacent to the golf course. Travelers were forced from the pathway and onto roadways if they wanted to continue traveling west.

In 1990, the Idaho Foundation for Parks and Lands constructed and installed two bridges connecting the north side of the river to the south side near the golf course using Plantation Island as a crossing point. One bridge crossed the north channel of the river, and the other crossed the south channel. A quarter-mile paved pathway was also constructed on the island, connecting the two bridges. This was an important milestone, as these bridges provided access to the island and connected the Greenbelt to Garden City and existing pathways west of Glenwood Street. Since this vital connection was made, Garden City has completed sections of Greenbelt on the south side of the river roughly from 44th Street to 49th Street and procured a bike path on the north side of the river connecting the Greenbelt to the City of Eagle.

In March 2017, Boise River flows averaged more than 7,000 cubic feet per second at the U.S. Geologic Service's Glenwood Bridge monitoring station. On April 3, 2017, when river flows were approaching 8,000 cubic feet per second, the south channel bridge between the west end of Plantation Island and the south side of the river was removed because of extensive erosion caused by high water flows. During that month, the north portion of the island eroded away as did part of the Greenbelt. This resulted in parts of the bridge's island abutment breaking loose and falling into the river.

The owner of the bridge, the Idaho Foundation for Parks and Lands, secured a grant in 2018 through the Federal Emergency Management Administration (FEMA) to place the removed bridge back in its original location and reestablish the critical north-south connection. Matching funds for the FEMA grant were provided by a substantial public fund-raising effort, securing donations from both businesses and private individuals. Because of this effort, the bridge was reopened to the public on March 25, 2019. In addition to replacing the bridge and its damaged abutment, the project also included repairs to the Greenbelt and the addition of riprap armament to the island to prevent further erosion of the island in the vicinity of the bridge abutment.

With the addition of riprap armament to the island, future erosion in the vicinity of the bridge abutment is less likely but still a concern. Therefore, it is possible that the bridge will need to be removed again when high river flows create velocities great enough move and remove the riprap.

Purpose and Need Statement

The purpose of this project is to design and construct a bicycle and pedestrian bridge over the south channel of the Boise River at Plantation Island that is safer than the existing one, can accommodate emergency service and maintenance vehicles, is more resilient to high river flow events, and connects the south side of the Greenbelt to the north side through the existing north channel Plantation Island bridge. The project is needed because:

1. The south channel Plantation Island bridge is a critical connection for the Greenbelt system and provides bicycle/pedestrian access to commercial, recreational, and employment centers in three cities (Eagle, Garden City, and Boise). It also provides regional access to Boise State University and several parks adjacent to the Boise River. Without it, bicyclists and pedestrians are forced to use the busy surface streets and roadways that parallel the Greenbelt to access destinations north of the river between Glenwood Bridge and the Veterans Memorial Parkway Bridge (a distance of 2.5 miles), including State Street (36,000 annual average daily traffic [AADT]) and Chinden Boulevard (34,000 AADT). Thus, this bridge provides the safest river crossing option for bicyclists and pedestrians.
2. The south channel bridge provides the best opportunity for maintenance and emergency vehicles to access the island. The north side of the river is occupied by residential developments and a golf course, limiting access to bicyclists and pedestrians only. The south side of the river is less developed and can provide direct island access to vehicles when needed by E. Remington Street. Thus, the south channel bridge needs to accommodate law enforcement, emergency services, and maintenance vehicles. The current bridge and its location preclude direct emergency and maintenance vehicle access.
3. Several regional and area-specific transportation and land use plans rely on this bridge to connect the south side of the river to the north side, including the *Northwest Boise Neighborhood Walking and Biking Plan* (ACHD 2015), Ada County's *Park and Open Space Master Plan* (2007), ACHD's *Roadways to Bikeways Plan* (2018 Addendum), the *Garden City Master Parks Plan* (2010, Amended 2016), *Blueprint Boise* (2011), The City of Boise's *Transportation Action Plan* (2016), and COMPASS' long-range transportation plan, *Communities in Motion 2.0* (2018).
4. Future land use of the island and the land adjacent to the south bank of the river in the vicinity of the bridge could possibly change. Plantation Island is undeveloped today but could transition into a city park in the future. Likewise, Les Bois Park, a former horse racing track adjacent to the Greenbelt and south bank of the river, could transition into a large county park or other recreation-focused use, which would attract more bicycle and pedestrian trips to the area. Because both properties are in the floodway and 100-year floodplain of the Boise River, future development will likely be limited to recreational use that can accommodate the river during high flows.

Communities in Motion Strategic Goals and Performance Measures

The *Communities in Motion* strategic goals and performance measures applicable to this bridge project include:

Goal 1.1: *Enhance the transportation system to improve accessibility and connectivity to jobs, schools, and services; allow the efficient movement of people and goods; and ensure the reliability of travel by all modes considering social, economic, and environmental elements.*

Performance Measure: *Bridge conditions not "structurally deficient."*
The south channel bridge will be considered "structurally deficient" if it is unable to withstand another high flow event on the Boise River.

Goal 1.2: *Improve safety and security for all transportation modes and users.*

Performance Measures: *Number of bike crashes/injuries* and *number of pedestrian crashes/injuries.*
A new bridge design will be safer and more reliable than the current bridge during high flow events. A concrete or asphalt deck will be smoother than the current wood timbers, reducing injuries related to the uneven bridge deck.

Goal 1.3: *Protect and preserve existing transportation systems and opportunities.*

Performance Measure: *Vehicle emissions.*
Providing a reliable east-west bike/ped pathway, such as the Greenbelt, can reduce the number and length of vehicle trips, reducing vehicle emissions.

Goal 1.4: *Develop a transportation system with high connectivity that preserves capacity of the regional system and encourages walk and bike trips.*

Performance Measure: *System Reliability.*
The Greenbelt provides a higher level of connectivity with the south channel bridge in place than it does without it. The bridge is necessary to provide reliable bike/ped travel to destinations between the Glenwood Street Bridge and the Veterans Memorial Parkway Bridge.

Goal 4.2: *Promote maintenance and preservation of existing infrastructure.*
The Plantation Island south channel bridge has been a reliable part of the Greenbelt for 27 years. Therefore, it is existing infrastructure. The need to replace the bridge has come as a result of the island changing from the river's high flow event in the spring of 2017. It is likely high-water flows will become more commonplace on the Boise River, requiring a more resilient location and design.

Performance Measure: None of the measures for this goal are applicable to the project.

Goal 7.1: *Promote development and transportation projects that protect and provide all of the region's population with access to open space, natural resources, and trails.*

Performance Measures: *Miles of trails and pathways, Boise River Greenbelt Miles,* and *Boise River Greenbelt Access.*
The Plantation Island south channel bridge is part of the Greenbelt and part of the trails and pathways system in the region. It provides access between the north and south sides of the Boise River between Glenwood Street and Veterans Memorial Parkway.

Existing Conditions

Land Use and Jurisdictional Boundaries

Figure 2 provides a map of jurisdictional boundaries in the vicinity of Plantation Island. Garden City and Ada County are charged with land use planning in the area. The island itself, the pathway on the island, and both bridges are owned by the Idaho Foundation for Parks and Lands, a private nonprofit corporation. However, the island has been annexed into Garden City. Ada County owns and manages Expo Idaho and Les Bois Park, which are adjacent to the Greenbelt on the south side of the Boise River.

The boundaries between the City of Boise and Garden City in the vicinity of Plantation Island are State Street, approximately a half mile to the northeast, and Lakeharbor Lane, approximately 300 feet to the east of the southern portion of the island. Boise owns, operates, and maintains 25 miles of the Greenbelt pathway system adjacent to the Boise River. Therefore, many of the city's planning decisions indirectly affect the use of the Plantation Island bridges.

Plantation Island exists as undeveloped land except for its bridges and pathway. The northern portion of Plantation Island and the north bank of the river are currently zoned R-2 (medium density residential), while the southern portions of the island and south bank are zoned R-3 (higher density residential). Large-lot, single-family residential developments exist on the north bank of the north channel as does the Plantation Golf Course. The south bank of the south channel contains a single-family residential development and three large-lot, single-family homes. Horse stables associated with the idle Les Bois Park racetrack are located directly west of where the south channel bridge connects the island to the south bank of the Boise River. A portion of the track and E. Remington Street are also adjacent to the river's south channel. Expo Idaho and Les Bois Park are zoned for Rural-Urban Transition (RUT) use.

There are no plans to develop the island, as it sits within the floodway of the Boise River, but Garden City has considered turning it into a seven-acre park. Future land use adjacent to the river is not likely to change, as most of the adjacent land is in the floodplain for the Boise River. Garden City's comprehensive plan shows the north bank as green space (golf course) or low-density residential. The south bank is planned to be mixed-use residential.

Bicycle and Pedestrian Network

Figure 3 shows the bicycle and pedestrian facilities/access in the vicinity of Plantation Island. The principal bicycle/pedestrian facility that exists in the area is the Boise River Greenbelt. It is a paved pathway that follows the Boise River. The Greenbelt on the north side of the river in the vicinity of Plantation Island ends at a residential development connected to the Plantation Golf Course. In 1990, two bridges and a pathway were constructed on the island so that the Greenbelt could continue west beyond Boise by the south side of the river, through Garden City and on to the City of Eagle. Ada County then constructed a portion of the Greenbelt on the south side of the river to connect the Greenbelt to Glenwood Street. A parking lot on the east side of the Glenwood Bridge, south side of the river, acts as staging point for many recreational bicycle and pedestrian trips, especially on the weekends. In August 2017, COMPASS installed a bicycle/pedestrian counter on the Greenbelt west of the Glenwood Bridge. The average number of daily pedestrian trips on this portion of the Greenbelt is 178, while the average number of daily bicycle trips is 102.

On the south side of the river, the Greenbelt ends 0.2 miles south of the south channel bridge. The Greenbelt resumes 500 feet from where it ends and continues, for the most part, all the way into Boise. However, the 500-foot break is due to three private residential properties, which results in a 0.6 mile (3,090 ft.) eastbound detour using the local roadway network.

Identified Bicycle/Pedestrian Improvements

There are several transportation plans that overlap or may influence future bicycle/pedestrian facilities in the vicinity of Plantation Island. These include:

- The *Garden City Master Parks and Waterways Plan* (Amended 2016)
- The *Garden City Comprehensive Plan* (2006)
- The *Ada County Park and Open Space Master Plan* (2007)
- Ada County Highway District's *Roadways to Bikeways Plan* (Amended 2018)
- The *Northwest Boise Neighborhood Walking and Biking Plan* (2015)

Each plan calls for maintaining the Greenbelt on both sides of the river, with only minor improvements/repairs made to the pavement as needed. Additionally, Ada County plans on extending the Greenbelt west along the Boise River into Canyon County by working with other jurisdictions as necessary.

Garden City intends to complete the Greenbelt on the south side of the river, improve pathway access to the Greenbelt, and develop sidewalks along roadways as opportunities and funding become available. Gaps in the south side of the Greenbelt, such as the one between the south channel bridge and 52nd Street, will eventually be connected over the next 10 to 20 years as funding and right-of-way becomes available.

Connectivity to the Roadway Network

Plantation Island connects to the surface street network on the north side of the river by a Greenbelt access pathway and N. Plantation River Drive. Plantation River Drive is a local roadway and designated bicycle route that provides access to State Street, a principal arterial and high-service transit corridor. A sidewalk is provided on at least one side of Plantation River Drive, and a traffic signal with designated pedestrian crossings is located at Plantation River Drive and State Street.

Travelers on the south side of the river must access surface streets to continue traveling east or west on the Greenbelt. Connectivity to the west is limited by Glenwood Street, which is approximately 0.8 miles from the south channel bridge. Eastbound travelers must use E. Remington Street, which is approximately 290 feet south of the south channel bridge. Glenwood Street is a principal arterial, and E. Remington Street is a local roadway. Both are designated bicycle routes. Glenwood Street provides both bicycle and pedestrian access to pathways on both the north and south sides of the river that continue west on to the City of Eagle. Remington Street connects to 52nd Street, which provides access to the Greenbelt on the south side of the river. Both E. Remington Street and 52nd Street are without sidewalks for much of their length, forcing pedestrians to walk on either the roadway or the dirt shoulder.

Figure 2. Jurisdictional Boundaries

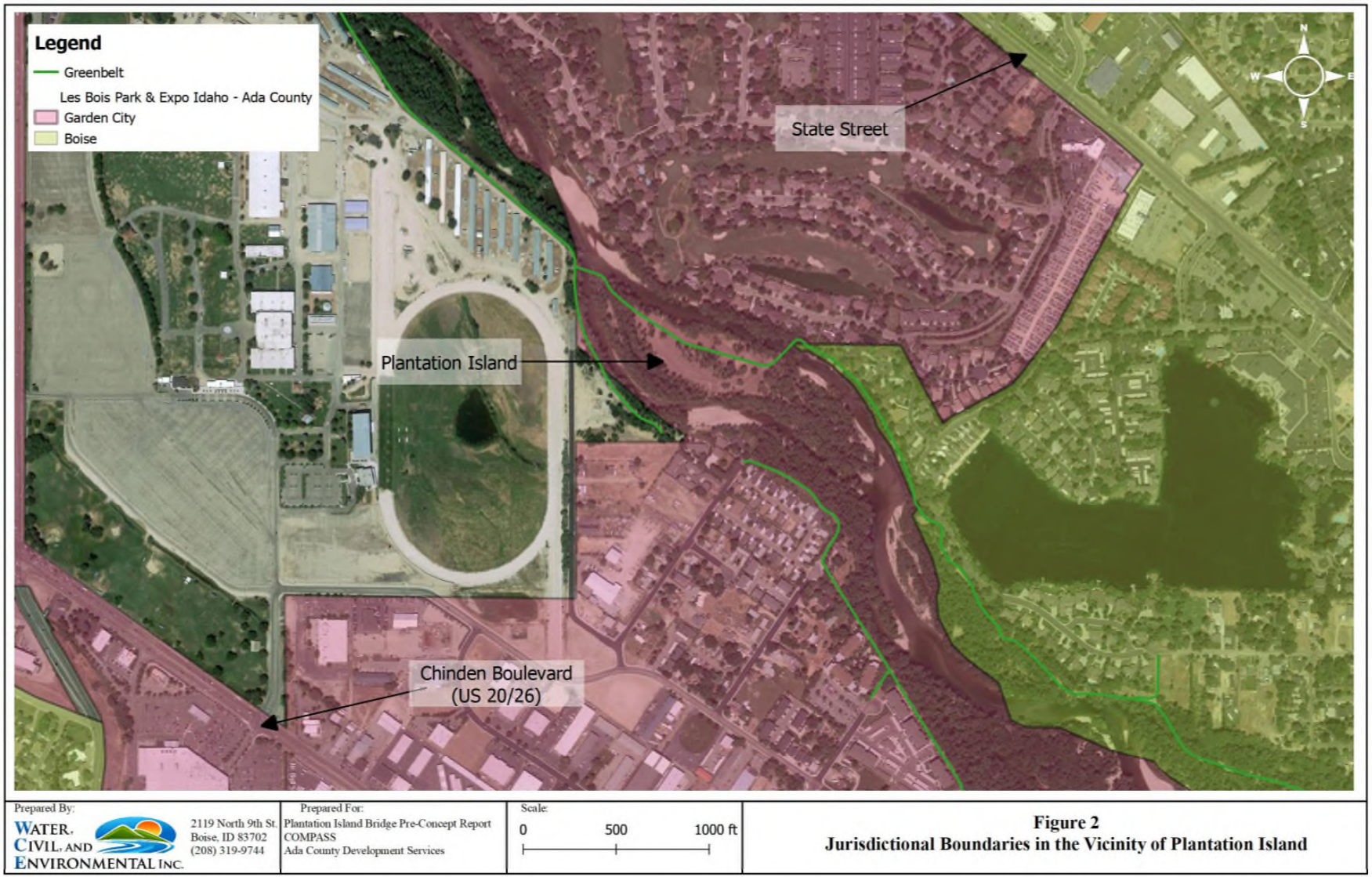


Figure 3. Bicycle and Pedestrian Facilities and Access

Public Transportation

No transit or school bus stops are located within the project area, but both Plantation Island bridges are key parts of the bicycle/pedestrian infrastructure connecting to transit and school bus access. ValleyRide operates five bus routes in the vicinity of Plantation Island: Route 44 and Route 9 on State Street north of the Boise River, Routes 8X and 11 on Adams Street and Chinden Boulevard south of the Boise River, and Route 12 on Glenwood Street west of the project area. The closest bus stops to the south channel bridge are the Alworth/Kent and Adams/50th stops along Route 11 (Garden City Route). Each of these stops is less than a mile from the bridge.

On the north side of the river, bicyclists and pedestrians can access the State Street Routes (Route 44 and 9) by way of the State/Plantation River stop. It, too, is less than a mile from Planation Island and the south channel bridge. State Street's Route 9 offers the most frequent access to public transportation, and there are plans to further improve transit service in the future by making it a high-capacity transit corridor.

The enrollment boundary for Pierce Park Elementary School, Riverglen Jr. High, and Capital High School includes properties on both sides of the island in both Garden City and Boise. Bus service is provided for students on the opposite side of the river from the schools. Thus, students south of the river have bus service to Pierce Park Elementary and Riverglen Jr. High, while students north of the river have bus service to Capital High School.

Boise River and Flooding

Before 1915, flooding along the Boise River was commonplace during the spring months. In 1915, Arrowrock Dam was completed to provide irrigation water to farmers in the Treasure Valley. Several floods in the 1930s and 1940s, along with the increasing need for irrigation water, prompted the construction of two more dams on the Boise River upstream from the city: Anderson Ranch and Lucky Peak. Both dams were completed by 1955, making flood events less frequent.

A 100-year flood event, or base flood, is one that has a 1 percent chance of happening in a given year and is used to assess flood risk. According to the most recent Flood Insurance Study of the area, Plantation Island, parts of Les Bois Park, and much of the Greenbelt in the vicinity of the island are within the 100-year floodway of the Boise River. The floodplain extends beyond the floodway to include Plantation Golf Course to the north and Les Bois Park and parts of Expo Idaho to the south. A map of the 100-year and 500-year flood events is provided in **Figure 4**. It also shows the inundation areas given specific river flows at the Glenwood Bridge. Note that the Flood Insurance Study is in the process of being updated but will not result in any changes in the study area, as it has been included in FEMA's seclusion zone.[1]

The USGS installed a permanent river flow gage at the Glenwood Bridge in 1982 and began monitoring water flow in the river. Since that time, peak flows have exceeded 7,000 cubic feet per second (cfs) in 10 different years. Three of those years have occurred in the past 10 years, and seven of these high flow years have occurred since the Plantation Island bridges were installed in 1990.

[1]Levee seclusion mapping will maintain the flood hazard information as depicted on the current effective flood mapping (the one in effect before the ongoing update) with map notes explaining that these flood hazards will be updated when the updated levee analysis and mapping approach is applied.

In March 2017, Boise River flows averaged more than 7,000 cfs at the Glenwood Bridge monitoring station. On April 3, 2017, when river flows were approaching 8,000 cfs, the south channel bridge between the west end of Plantation Island and the south side of the river was removed because of extensive erosion of the bridge abutments. During that month, parts of the bridge's foundation broke loose and fell into the river as did part of the Greenbelt on Plantation Island. Later that year, peak flows hit almost 9,600 cfs at Glenwood Bridge, making it the third-highest peak flow recorded at the location. In 1983, the peak flow was measured at almost 9,850 cfs. The highest peak flow measured on the Boise River in Boise occurred in 1938.That spring the river was flowing at 13,000 cfs.

The owners of the bridge, the Idaho Foundation for Parks and Lands, raised $75,000 in donations in the summer of 2018 to provide a match for a FEMA grant to place the removed bridge back in its original location by the spring of 2019. The overall project cost approximately $200,000 for grouting abutments, restoring the island, riprap protection of the embankments, repairing the pathway, and restoring the bridge. However, given the changes to Plantation Island in the vicinity of the bridge abutment, it is likely that another high flow year will do more damage to the island and the bridge abutments. This could cause the permanent removal of the bridge sometime in the future.

A two-dimensional (2D) unsteady flow hydraulic modeling analysis of the existing south channel bridge over the Boise River was conducted using the U.S. Army Corps of Engineers' Hydraulic Engineering Center River Analysis System (HEC-RAS) software using a base model provided by Ada County. The intent of the analysis was to provide the county and other stakeholders with a river flow rate at which they should consider removing the south channel bridge. **Figure 5** shows the results of the hydraulic analysis. The model showed that the existing south channel bridge was designed with sufficient clearance between the low chord of the bridge and the water surface elevation at both the 100-year and 500-year flood occurrence intervals. Thus, future removal of the bridge due to water surface elevation is unlikely. Instead, the concern is with the increased velocities within the main river channel that may cause further erosion and scour around the existing island-side bridge abutment.

In 2017, the flow of the river at Glenwood Bridge peaked at 9,590 cfs, which equals approximately a 33-year recurrence flood interval, or one-in-33 chance of occurring in a given year. The velocity within the river channel during this event was between 3.5 and 5 feet per second (fps), which is high enough to move (and remove) the riverbed material and the material making up the island. This caused the island near the bridge abutment to erode, allowing larger rocks to slump into the river, which caused the failure seen along the Greenbelt and bridge abutment. Velocities during the 100-year recurrence intervals are estimated between 5.5 fps and 6.5 fps. These velocities would likely cause more erosion to occur on the island.

However, it is likely the updated armoring/riprap that was placed along the downstream point of the island in 2019 will protect the bridge for many years, possibly decades to come. However, a localized scour analysis around the bridge abutment and at the downstream point of the island was not conducted. To estimate the channel velocities needed to cause either the new riprap to be removed or for the unarmored portions of the island to erode, a scour analysis is needed.

Figure 4. 100-year and 500-year Flood Map

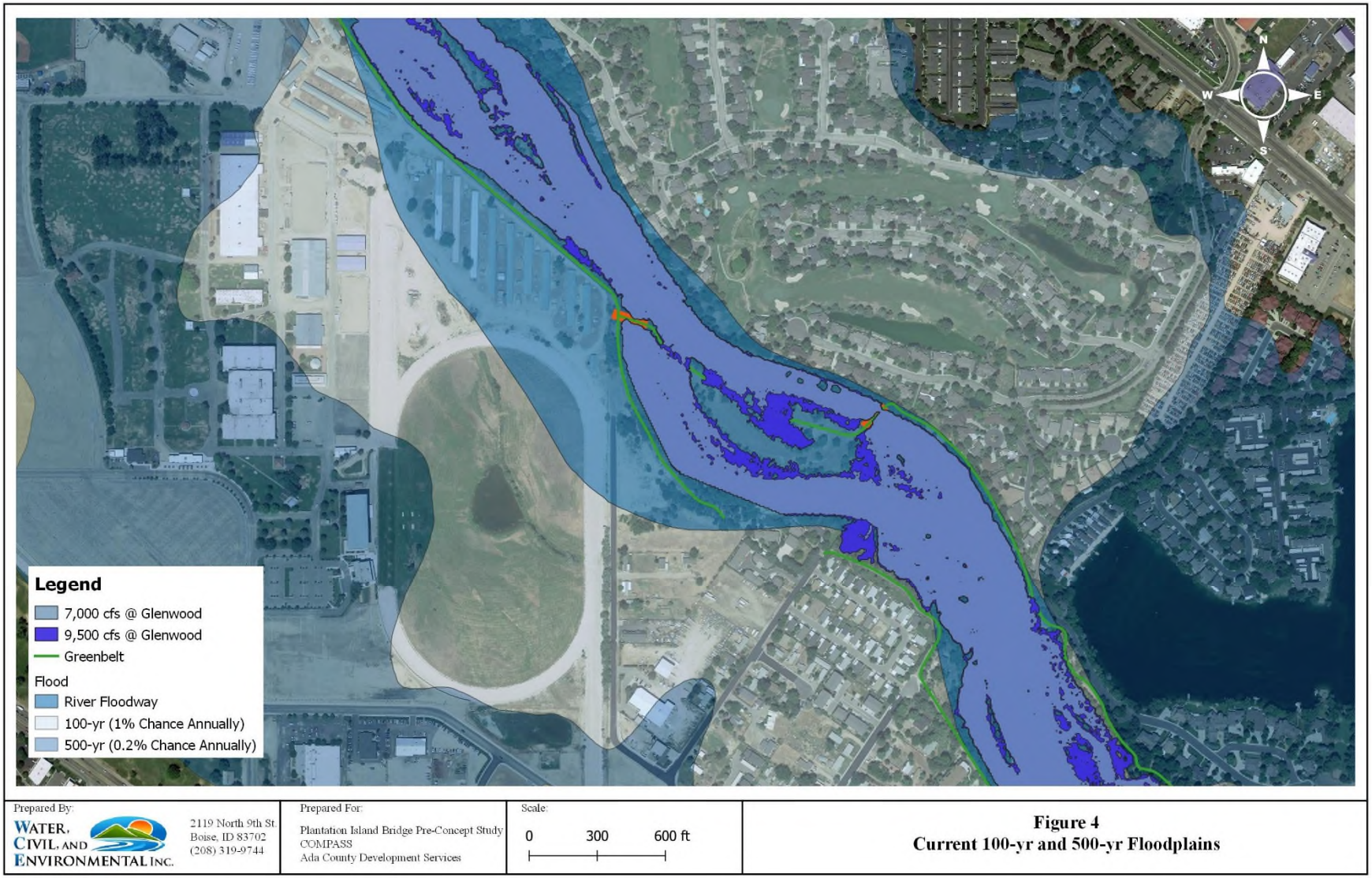
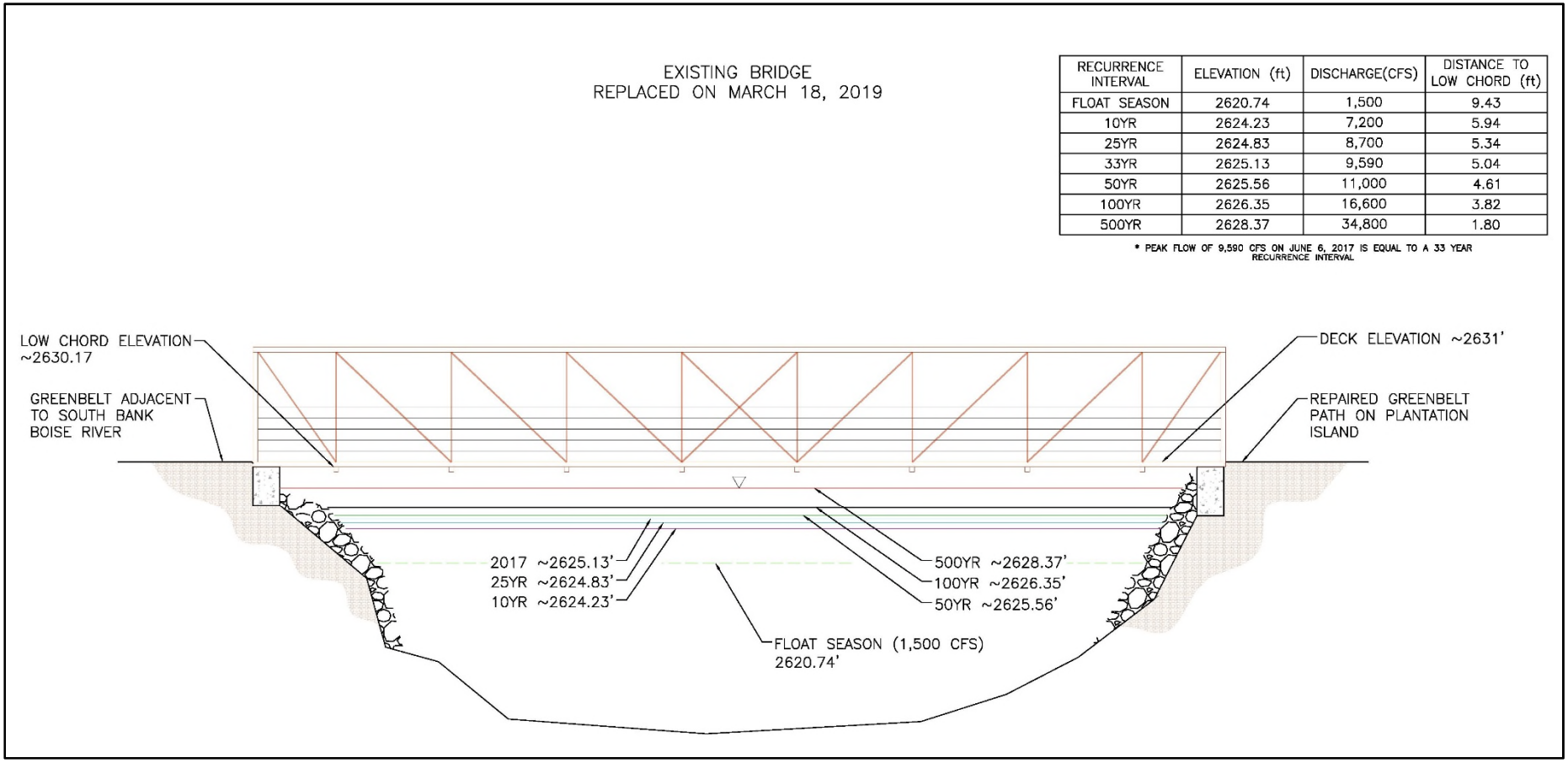


Figure 5. Hydraulic Modeling Analysis of the South Channel Bridge



RECURRENCE INTERVAL	ELEVATION (ft)	DISCHARGE(CFS)	DISTANCE TO LOW CHORD (ft)
FLOAT SEASON	2620.74	1,500	9.43
10YR	2624.23	7,200	5.94
25YR	2624.83	8,700	5.34
33YR	2625.13	9,590	5.04
50YR	2625.56	11,000	4.61
100YR	2626.35	16,600	3.82
500YR	2628.37	34,800	1.80

* PEAK FLOW OF 9,590 CFS ON JUNE 6, 2017 IS EQUAL TO A 33 YEAR RECURRENCE INTERVAL

Overall, increased velocities around the abutments is the biggest issue to the south channel bridge, since increased scour may occur around the abutment. During future high-water flow events, the island and bridge abutments should be monitored for the effects of scour and erosion. If scour/erosion is occurring and threatening the bridge abutments, then it may be appropriate to remove the bridge before it fails.

Environmental Scan

An environmental scan of the project area was produced as a separate report and is included in **Appendix A**. The following are the findings of the environmental scan:

- General Land Use
    - Plantation Island exists as undeveloped land except for the Greenbelt, which runs along its northwestern side. Areas forested with cottonwood trees and willows are mainly located along the southern edge of the island; the center of the island has been cleared. The Greenbelt and residential areas are located on the north and south banks of the river, across from the island.
- Cultural Resources
    - No structures identified in the assessor's records as being more than 45 years old were found in the project area. However, the horse stables at Les Bois Park, located across the Boise River and directly to the northwest of the proposed project area, were constructed in the 1970s.
    - No sites within the project area are listed on the NRHP.
- Section 4(f) Properties
    - The Greenbelt started out as a recreational pathway but has since grown into an integral part of the valley's multimodal transportation system. Whether or not Section 4(f) applies is unclear, but the purpose of the proposed project is to maintain the continuity of this pathway and, therefore, it would likely be exempt. No other potential Section 4(f) properties in the form of parks, recreational areas, wildlife refuges, or historic properties are in the project area.
- Biological Resources
    - The yellow-billed cuckoo, a federally listed endangered species, may occur in the project area, but the proposed project area is not located in proposed critical habitat for this species.
    - Eight migratory bird species may occur in the project area. Nesting and breeding habitat for these birds may be disturbed as a result of project construction.
    - There are no USFWS refuge lands or fish hatcheries within the project area.
- Water Resources and Wetlands
    - The Boise River flows around Plantation Island and wetlands are likely located along the southern side of the island and the southern bank of the south channel of the river.
- Environmental Justice and Neighborhood Services

  - Minority and low-income populations were identified to the south of the project area, but none are residing in the area.
  - No ValleyRide or school bus stops are in the project area.
  - No emergency services, including fire, police, and hospitals, are in the project area.

- Hazardous Materials
  - No hazardous materials sites were found in the proposed project area, and neither of the two hazardous materials sites identified as being adjacent to or upgradient of the proposed project area are environmental concerns to the proposed project area.

Future Environmental Studies and Permits

If the project receives federal funding, the following studies and/or permits may be required:

- National Environmental Policy Act (NEPA) documentation (likely a documented categorical exclusion)
- Archaeological and Historic Survey Report for Section 106 compliance
- A Section 4(f) finding (if historic resources may be affected)
- Wetlands delineation
- Biological survey with possible assessment

Bridge Alternatives

Alternatives to the existing bridge were developed by considering both bridge location and bridge type. The three general locations were identified based on their connection to the existing Greenbelt on the south side of the river, north of its dead end, and include the North Point, Central Point, and South Point. The bridge types considered include new concrete (precast, prestressed deck bulb-tee), new steel (steel plate girder), pre-engineered steel, and rehab of the existing bridge (100-foot steel bridge). Given the three locations and four bridge types, the total number of alternatives considered was twelve (12).

Locations Considered

Figures 6 and 7 show the Fatal Flaw areas as well as the three location alternatives considered. Fatal Flaw areas are ones that were considered but quickly discarded because they either do not meet the purpose and need for the relocation of the bridge or would result in a bridge length much longer than what could be considered necessary.

The North Point option would relocate the crossing upriver from its current location to somewhere near where E. Remington Street ends, avoiding the portion of the island that will continue to erode during future high-water flow events (i.e., existing location). The south bank of the river in the North Point location is higher in elevation than the other location options but is slightly lower in elevation than the existing location. The higher bank elevation at this location helps to protect the bridge and its approaches from being affected by floodwaters. It also avoids the portion of the island most likely to be eroded by high river flows and provides a more direct connection to the surface street network needed to proceed east on the south side of the river.

The Central Point location places the bridge upstream, southeast of where E. Remington Street ends. The bank elevation in this area is slightly lower than the North Point location but still provides an opportunity to access E. Remington Street directly by property owned by Ada County.

The South Point location places the bridge as far upstream as practical, attempting to maintain a bridge length of approximately 100 feet. Of the three location alternatives, this one has the lowest current elevation along the south bank of the river and would require the abutments to be elevated (i.e., built up) to keep them from being inundated during high water events. Locating the crossing here would also require the most liner feet of new Greenbelt pathway construction on the island.

Figure 6. South Channel Bridge Location Alternatives with Fatally Flawed Areas

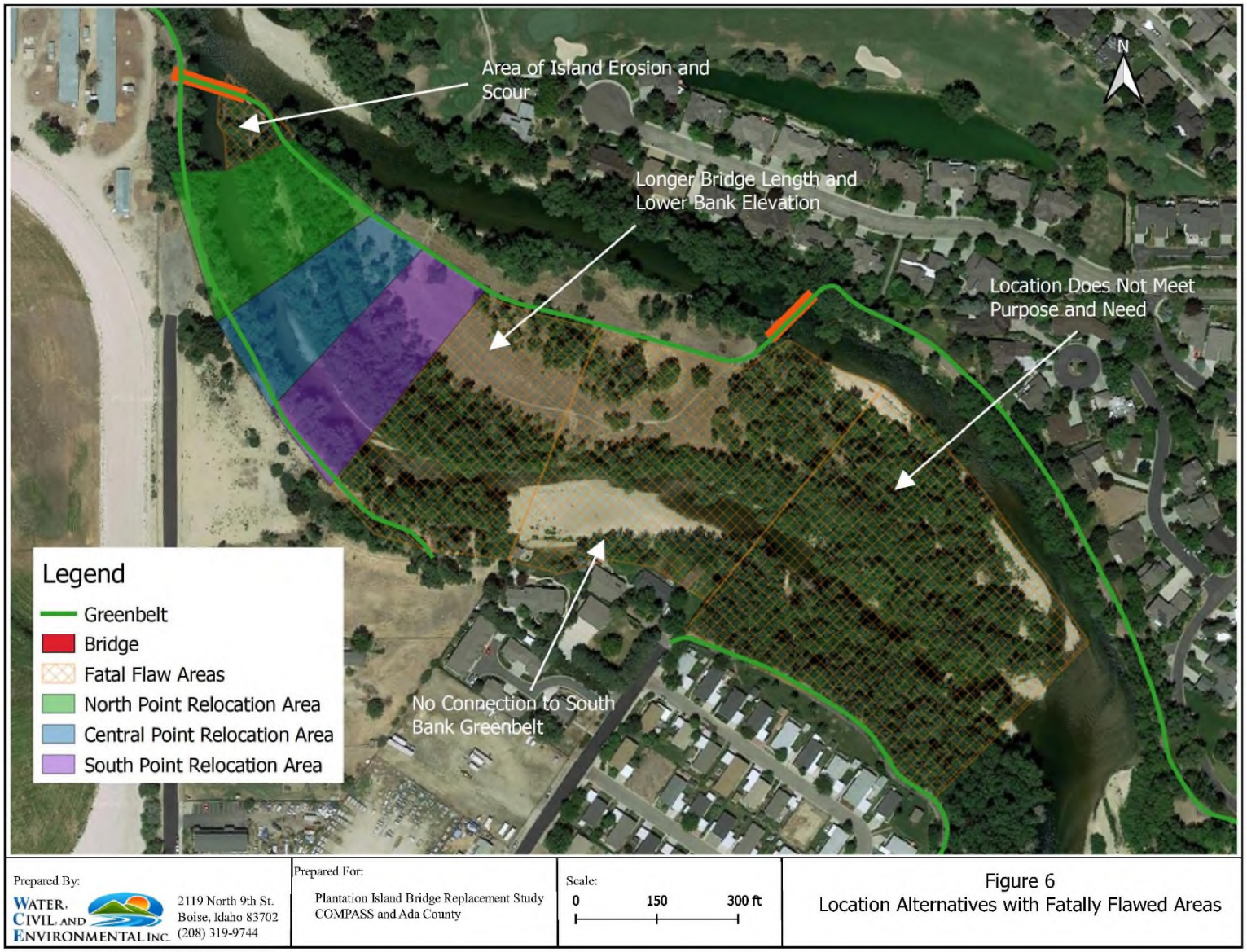
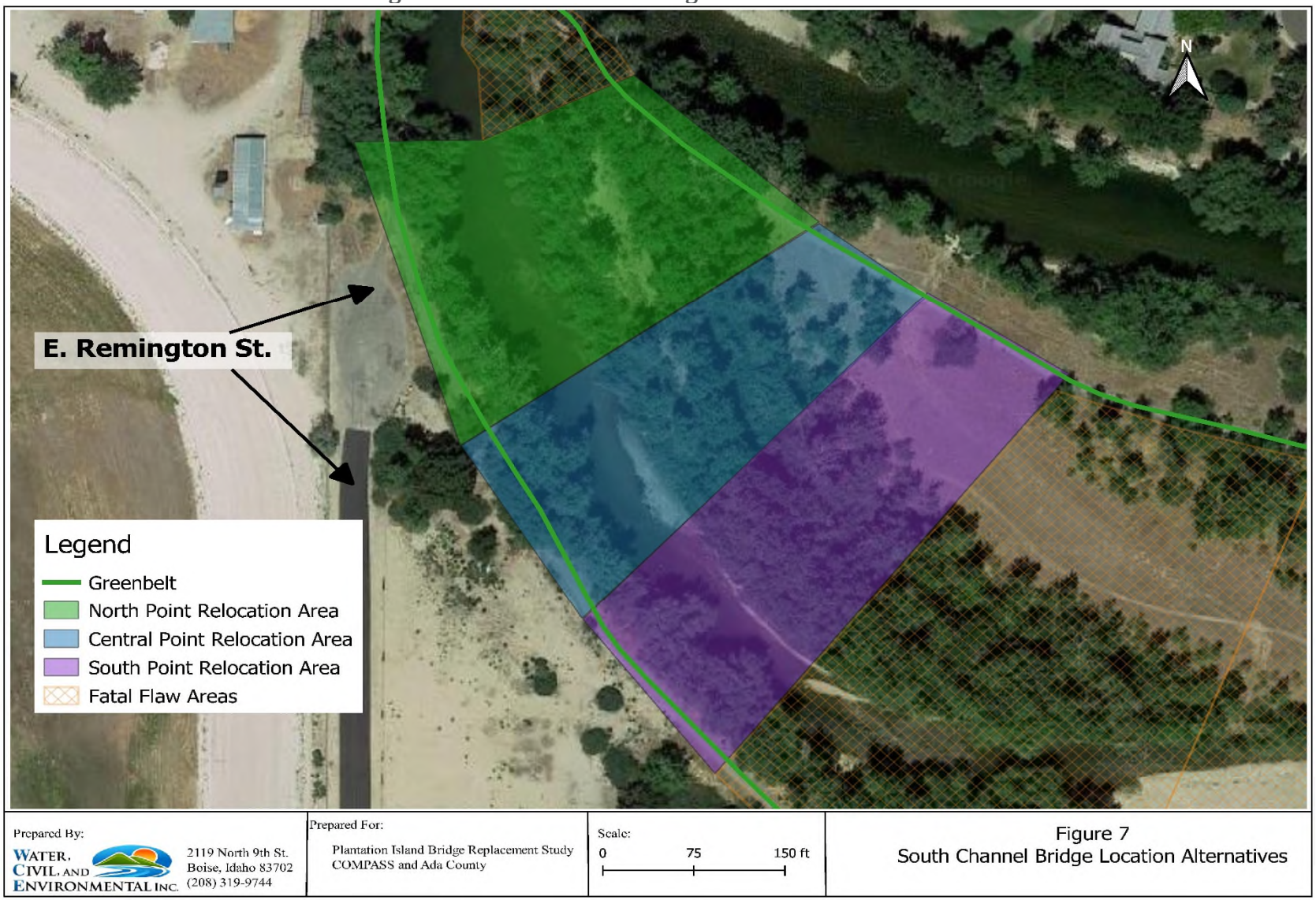


Figure 7. South Channel Bridge Location Alternatives



Bridge Types Considered

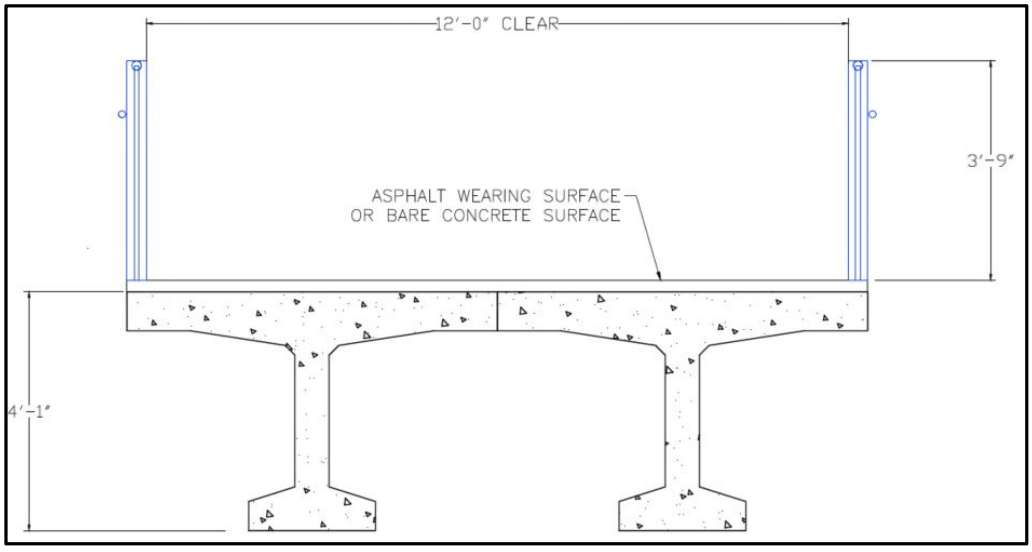
Four types of bridges were considered for the preferred alternative: a new precast, prestressed concrete deck bulb-tee bridge, a new steel plate girder bridge, a new pre-engineered steel truss bridge, and rehabilitation of the existing south channel bridge.

New Precast, Prestressed Concrete Deck Bulb-Tee Bridge

Example of Concrete Deck Bulb-Tee Bridge

Deck Bulb-tee girders are a versatile long-span bridge type that can range in length from as short as 40' up to 160' and incorporates the benefits of both an “I” girder and a precast slab deck. These bridges are typically used for vehicle bridges but can also be used for bicycle/pedestrian bridges by adding the appropriate type of railings to it. Many of the benefits of these girders come from the versatility of the deck. Standard deck widths vary from 4' to 8' wide and 6" to 8" thick, but there are many possibilities for customization. The top surface can be finished as a driving surface (i.e., asphalt deck) or it can be let bare with a broom finish. A new Plantation Island bridge of this type would consist of two bulb-tee girders to provide a deck 12' wide with additional width for installation of a railing. The length of the bridge depends on its location. **Figure 8** provides a conceptual cross section for a new precast, prestressed concrete deck bulb-tee bridge for the south channel of Plantation Island.

Figure 8. Conceptual Cross Section for Concrete Deck Bulb-Tee Bridge

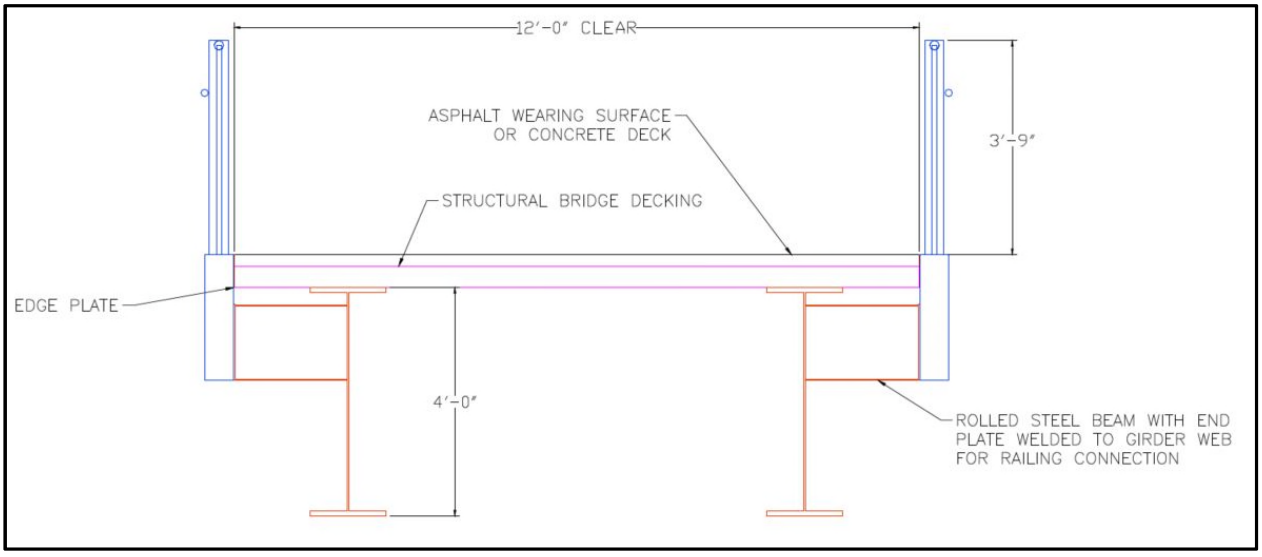


New Steel Plate Girder Bridge

A steel plate girder bridge is made of steel I-beams that are welded together using plates to form the bridge rather than standard rolled sections. They are typically used for both vehicle and bike/ped traffic and for both medium to long span lengths. These types of girders are usually prefabricated in a shop, and a reinforced concrete deck is placed over the top flange plate. **Figure 9** provides a conceptual cross section for a new steel plate girder bridge for the south channel of Plantation Island.

Example of Steel Plate Girder Bridge Construction (left) and Final Product (right)

Figure 9. Conceptual Cross Section for Steel Plate Girder Bridge

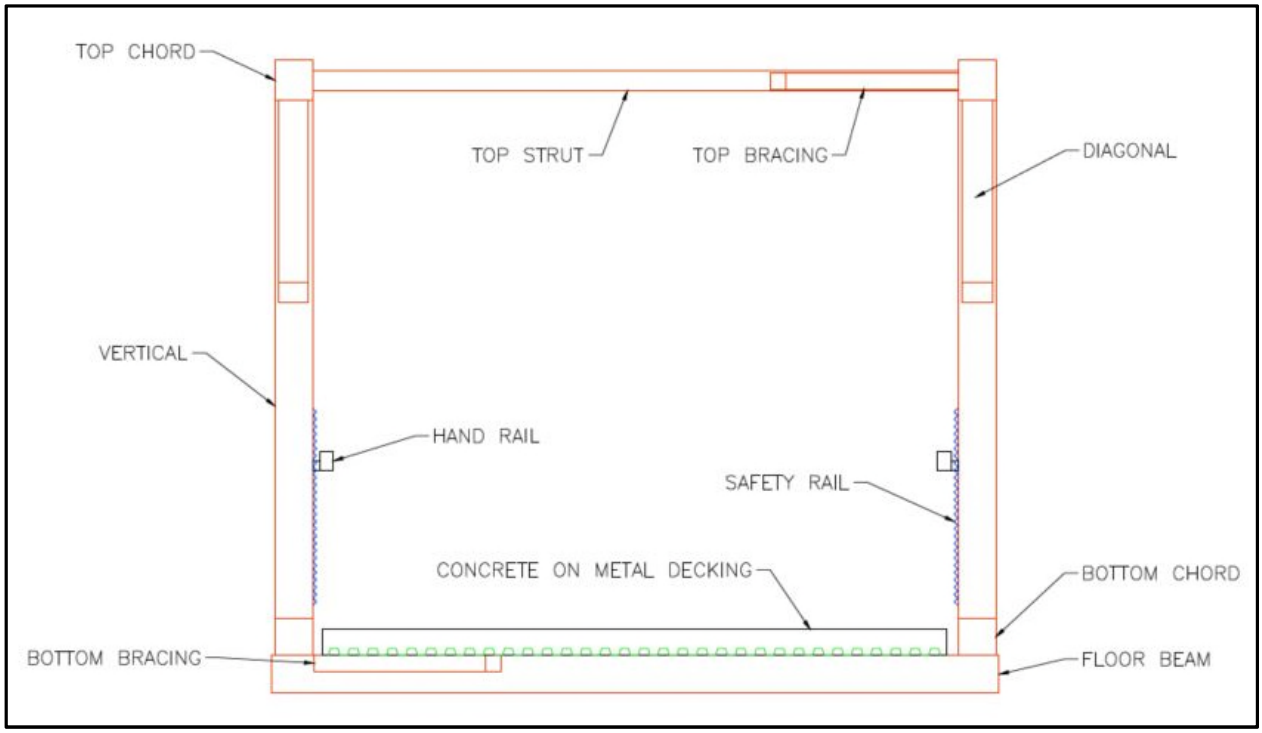


New Pre-Engineered Steel Bridge

A new steel truss bridge 14' wide could be ordered to a specific length for the specific location selected. This is similar to the West Pedestrian Bridge recently fabricated by Contech, which is 178' in length and installed over the Boise River near the gravel pits and W. Pebble Brook Lane in Garden City. **Figure 10** provides a conceptual cross section for a new pre-engineered bridge for the south channel of Plantation Island.

West Greenbelt Pedestrian Bridge in Garden City Constructed by Contech

Figure 10. Conceptual Cross Section for Pre-Engineered Steel Truss Bridge

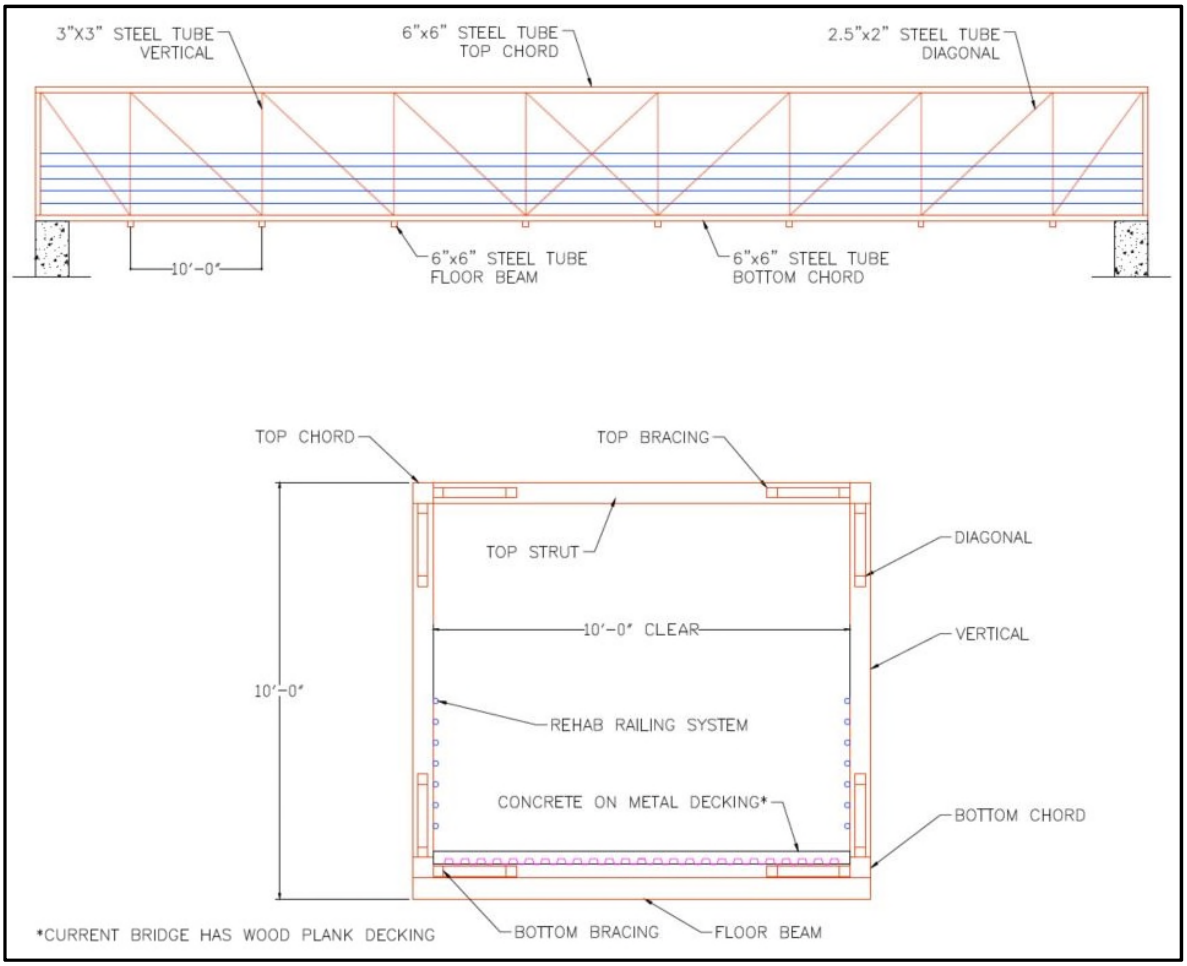


South Channel Plantation Island Bridge

Rehabilitation of the Existing Bridge

This alternative would repurpose the existing 10' by 100' bridge. To do this, the length of the new crossing must be close to 100', or the length of the bridge could be augmented by constructing extended abutments. This alternative would not offer the improvement opportunities that a new structure would (i.e., wider, higher load capacity), but a load rating analysis was conducted for the bridge in 2018 before it was replaced over the south channel of the river at Plantation Island. Therefore, the design loads associated with repurposing the bridge can be estimated for a new location and new deck material (e.g. concrete or asphalt). **Figure 11** provides the cross section and profile for the existing south channel bridge.

Figure 11. Cross Section and Profile of Existing South Channel Bridge



Evaluation of Alternatives

Each of the bridge type/location pairs (or alternatives) described above were evaluated by estimating their performance in several areas. Evaluation criteria were developed based on the project's purpose and need and discussions with staff members from COMPASS, the City of Boise, and Ada County on May 2, 2019. A score was given to each bridge alternative for each criterion ranging from "Excellent" through "Bad," depending on how each bridge type/location pair (or alternative) is conceptually expected to perform. Points are awarded based on the scores and totaled to provide an overall ranking for each alternative. Thus, the higher the point total for an alternative, the better the ranking. The relationship between score and points is:

- Excellent (●) = +2
- Good (◎) = +1
- Neutral (○) = 0
- Poor (◎) = -1
- Bad (●) = -2

The alternative (or alternatives) with the highest rank will be advanced for consideration as the preferred alternative for the project.

Evaluation Criteria

Six criteria were used to score and rank the alternatives:

1. Bicycle/Pedestrian Capacity—A new bridge 12' wide will accommodate the bike/ped demand. The existing bridge is adequate but not as desirable as a 12' bridge. A bridge of this width is considered Good (+1), while a bridge 10' wide (i.e., width of the existing bridge) is considered Neutral (0).

2. Emergency/Maintenance Vehicle Access—Alternatives that provide emergency/maintenance vehicles with the most direct access to the island from the south bank are preferred. Alternatives that provide the best access from the south bank of the river to the island are considered Excellent (+2), while alternatives that provide less direct vehicle access are considered Good (+1).

3. Context Sensitive Design—A new bridge will have several context sensitive design considerations that were not part of the current bridge's design. For example, a new bridge will need to be resilient and able to withstand another high-water year on the Boise River like the one experienced in 2017. Likewise, it will need to accommodate future land uses and recreational opportunities, such as floating and boating, and be aesthetically congruent, fitting in with the other bicycle/pedestrian bridges immediately upstream (i.e., North Channel Bridge) and downstream (i.e., West Pedestrian Bridge). Each of these considerations was used to develop subcategories for this criterion.

    a) *Resiliency:* Alternatives that provide existing south bank elevations near the 100-year flood event elevation (2,631 ft.) a is with few improvements were considered Excellent (+2). Alternatives requiring the elevation of the south bank to be raised somewhat above current ground level to meet the conditions of a 100-year event were considered Neutral (0). Alternatives requiring significant construction to raise the south bank elevation to withstand a 100-year event were considered Bad (-2).

b) *Future Recreational Opportunities:* Alternatives accommodating the future needs of floaters/boaters in addition to those of bicyclists and pedestrians were considered Good (+1), while alternatives less desirable for floater/boater needs were considered Poor (-1).

c) *Facilitating Adjacent Land Use Changes:* Alternatives that could possibly facilitate future changes to both Les Bois Park and Plantation Island were considered Excellent (+2), while alternatives that simply accommodate future land use changes were considered Good (+1). Any alternatives that were thought to neither help nor hurt future changes to Plantation Island and Les Bois Park land use were considered Neutral (0).

d) *Aesthetics:* Alternatives offering opportunities for custom aesthetic design elements in addition to being congruent with the design of the adjacent bridges were considered Excellent (+2). Alternatives that either offered opportunities for custom aesthetic design elements or were congruent in design with the adjacent bridges were considered Good (+1).

4. Safety Improvements—A new bridge offers opportunities to improve safety for bicyclists and pedestrians. The current south channel bridge has an uneven timber bridge deck with approaches that require navigating sharp turns and/or steep slopes. Thus, each of these considerations (bridge deck and approach geometry) were used to develop subcategories for this criterion.

a) *Bridge Deck Smoothness:* Alternatives with a concrete deck and no or small joint widths were considered Excellent (+2). Alternatives with an asphalt deck or concrete deck with significant joint widths were considered Good (+1). Any alternatives where the decking material could not be determined or where the bridge might require additional strengthening were considered Poor (-1), while timber bridge decking or other uneven surface was considered Bad (-2).

b) *Bridge Access Approach Geometry:* Alternatives with the best potential for no radius into the bridge and gradual slopes up to the abutments without significant changes to properties adjacent to the south bank of the river were considered Excellent (+2). Alternatives that could accommodate safer geometries but would require use of the adjacent south bank properties were considered Good (+1), while geometries similar to the existing bridge and location were considered Neutral (0).

5. Constructability—The effort required to construct the new bridge and Greenbelt connections were considered. Ideally, construction would start in November and be completed before the beginning of high water in March of the following year.

a) *Amount of Construction Required:* Alternatives requiring the least amount of construction for new abutments and pathway connections were considered Excellent (+2). Alternatives that would require a greater effort to construct either new abutments or new pathway connections were considered Good (+1). Alternatives that would require a great effort to construct both new abutments and pathway connections were considered Neutral (0), while any alternatives that could require a substantial construction effort, including driving piles and/or wet work, were considered Bad (-2).

b) *Duration of Construction:* Alternatives that could conceivably be constructed and opened in less than 12 months were considered Excellent (+2), while alternatives that required 12 months or more than one construction season were considered Good (+1) and Bad (-2) respectively.

6. Construction and Maintenance Costs—Bridge length, bridge type, and location will generally dictate construction costs. Maintenance costs associated with the new bridge were qualitatively estimated by comparing a given alternative with the assumed maintenance costs associated with the existing bridge/location.

   a) *Construction Cost:* Construction cost estimates under $270,000 were considered Excellent (+2). Estimates from $270,000 to $370,000 we considered Good (+1). The cost range between $370,000 and $400,000 was considered Neutral (0). Estimates with the potential to exceed $400,000 or $500,000 were considered Poor (-1) and Bad (-2), respectively.

   b) *Maintenance Cost:* If the alternative would likely require less maintenance than the existing bridge, it was considered Good (+1). If an alternative would require about the same level of maintenance, it was considered Neutral (0), and if it might require more maintenance that what the existing bridge currently requires, it was considered Poor (-1).

Scoring Alternatives

The results of the evaluation process and scoring are provided in **Table 1**. Given the evaluation criteria developed:

- Location dictated the scoring for:
  - Criteria 2 (Emergency/Maintenance Vehicle Access)
  - Criteria 3a (Resiliency)
  - Criteria 4b (Bridge Access Approach Geometry)
- Bridge type dictated the scoring for:
  - Criteria 1 (Bicycle/Pedestrian Capacity)
  - Criteria 3b (Future Recreational Opportunities)
  - Criteria 3d (Aesthetics)
  - Criteria 4a (Bridge Deck Smoothness)
  - Criteria 5b (Duration of Construction)
- Both location and bridge type were scored for:
  - Criteria 3c (Facilitating Adjacent Land Use Changes)
  - Criteria 5a (Amount of Construction Required)
  - Criteria 6a (Construction Cost)
  - Criteria 6b (Maintenance Cost)

Because both bridge type and location were evaluated for each alternative and given scores, Criteria 3c, 5a, 6a, and 6b have two scores per alternative.

Table 1. Evaluation Summary and Scoring of Alternatives

Evaluation Criteria	Location and Bridge Type Alternatives											
	North Point				Central Point				South Point			
	Concrete Bulb-Tee	Steel Plate	Pre-Engineered	Existing	Concrete Bulb-Tee	Steel Plate	Pre-Engineered	Existing	Concrete Bulb-Tee	Steel Plate	Pre-Engineered	Existing
1. Bicycle/ Pedestrian Capacity	⊙	⊙	⊙	○	⊙	⊙	⊙	○	⊙	⊙	⊙	○
2. Emergency/Maintenance Vehicle Access	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
3. Context Sensitive Design												
a) Resiliency	○	○	○	○	●	●	●	●	●	●	●	●
b) Future Recreational Opportunities	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
c) Facilitating Adjacent Land Use Changes	●/●	●/●	●/⊙	●/○	⊙/●	⊙/●	⊙/⊙	⊙/○	⊙/●	⊙/●	⊙/⊙	⊙/○
d) Aesthetics	⊙	●	●	⊙	⊙	●	●	⊙	⊙	●	●	⊙
4. Safety Improvements												
a) Bridge Deck Smoothness	⊙	●	●	⊙	⊙	●	●	⊙	⊙	●	●	⊙
b) Bridge Access Approach Geometry	●	●	●	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
5. Constructability												
a) Amount of Construction Required	●/○	●/○	●/●	●/●	⊙/○	⊙/○	⊙/●	⊙/●	○/○	○/○	○/●	○/●
b) Duration of Construction	⊙	⊙	●	●	⊙	⊙	●	●	⊙	⊙	●	●
6. Construction & Maintenance Costs												
a) Construction Cost	●/○	●/⊙	●/⊙	●/●	⊙/○	⊙/⊙	⊙/⊙	⊙/●	○/○	○/⊙	○/⊙	○/●
b) Maintenance Cost	○/⊙	○/⊙	○/○	○/⊙	⊙/⊙	⊙/⊙	⊙/○	⊙/⊙	⊙/⊙	⊙/⊙	⊙/○	⊙/⊙
SCORE:	**18**	**19**	**22**	**14**	**14**	**15**	**18**	**10**	**8**	**9**	**12**	**4**

Scoring: Excellent (●) = +2; Good (⊙) = +1; Neutral (○) = 0; Poor (⊙) = -1; Bad (●) = -2

North Point Locations

Criterion 2. Emergency/Maintenance Vehicle Access — This location has the best potential to provide direct roadway access to the bridge from E. Remington Street, making it easy for emergency/maintenance vehicles to drive across the bridge when needed. Score is Excellent (●) = +2.

Criterion 3a. Context Sensitive Design; Resiliency — This location has south bank elevations slightly lower (between two and five feet) than that of the existing bridge location. The island-side abutments would require the most raising (between five and eight feet). Score is Neutral (○) = 0.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — This location accommodates future changes to Les Bois Park the best, as it could provide direct access to where the stables and north portion of the track are currently located. Score is Excellent (●) = +2.

Criterion 4b. Safety Improvements; Bridge Access Approach Geometry — The design for this location could accommodate a direct, gently sloping approach to the island side abutment with no significant turning radius required. The south bank approach would require a turn radius to enter/exit the bridge from the existing Greenbelt. This could be mitigated by reconstructing the portion of the Greenbelt connecting to the bridge. The cul-du-sac at the end of E. Remington Street could be used to provide better bicycle, pedestrian, and wheelchair access to the Greenbelt and south channel bridge by providing space to construct a ramp. Score is Excellent (●) = +2.

Criterion 5a. Constructability; Amount of Construction Needed — New abutments would need to be constructed and built up to the required elevation on both the island side and the south bank, but this location requires the smallest amount of new Greenbelt (165 ft) to connect to the existing pavement on the island. Construction at this location would be more significant than what was needed to reset the bridge in 2019 but would represent the least amount of overall effort. Score is Excellent (●) = +2.

Criterion 6a. Construction Cost — This would be the lowest cost location due to its proximity to the Greenbelt on the island (i.e., least amount of new pathway needed, 165 feet). Its direct access to E. Remington Street will make it easy for construction equipment to access and will not require much new Greenbelt to be built on the south side of the river. Score is Excellent (●) = +2.

Criterion 6b. Maintenance Cost — This location offers the smallest amount of new pathway to maintain (200 feet or less). Score is Neutral (○) = 0.

Central Point Locations

Criterion 2. Emergency/Maintenance Vehicle Access —This location is not as direct as the North Point location. Direct access to the bridge is possible but requires travel across county property east of E. Remington Street. A paved 160-foot access road could be constructed through the property providing better access. Score is Good (◘) = +1.

Criterion 3a. Context Sensitive Design; Resiliency — This location has the highest existing elevations of the three locations being considered, requiring the least amount of raising for the bridge abutments, but some minor raising of the abutments (additional two or three feet) would still be needed to match the existing bridge elevations. Score is Excellent (●) = +2.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — This location can accommodate future land use changes but does not provide direct access to Les Bois Park. E. Remington

Street must be crossed to access the property, or one must travel approximately 260 feet north to avoid crossing the road. Score is Good (🟢) = +1.

Criterion 4b. Safety Improvements; Bridge Access Approach Geometry — A bridge design at this location could accommodate a direct, gently sloping approach to the island side abutment with no significant turning radius required. The south bank approach would require a turn radius to enter/exit the bridge from the existing Greenbelt. This could be mitigated by reconstructing a portion of the Greenbelt connecting to the bridge. The county-owned property adjacent to the Greenbelt east of E. Remington Street could be used to provide better bicycle, pedestrian, and wheelchair access to the Greenbelt and bridge by constructing a ramp. To do this, however, a portion of the property would need to be paved. Score is Good (🟢) = +1.

Criterion 5a. Constructability; Amount of Construction Needed — Abutments at this location would require the least amount of construction but would still need to be raised two or three feet above the existing ground elevations on both sides of the channel. Therefore, the effort would be like that of the North Point location. An additional 135 feet of new Greenbelt (approximately 300 feet total) would be needed to connect a crossing at this location to the island's existing pathway. This is almost double the construction needed for a North Point location and a more significant effort than what was required to reset the bridge in 2019. Score is Good (🟢) = +1.

Criterion 6a. Construction Cost — This location would require the construction of approximately 300 feet of new Greenbelt pathway and more clearing of existing vegetation. It requires a similar amount of material to build up the south bank abutment, but more improvements to the county-owned property adjacent to E. Remington Street would be needed to improve the quality of access. Score is Good (🟢) = +1.

Criterion 6b. Maintenance Cost — This location requires approximately 300 feet of new pathway and significant clearing of vegetation, which will need to be maintained. More maintenance of the adjacent county-owned property would be required. Therefore, increased maintenance costs will be required with this alternative. Score is Poor (🔴) = -1

South Point Locations

Criterion 2. Emergency/Maintenance Vehicle Access — This is the least direct of all the location alternatives. Direct access to the bridge by vehicles is still possible at this location, but it would require travel across the county-owned property east of E. Remington Street. A 240-foot access road could be built on the property to access E. Remington Street directly. Score is Good (🟢) = +1.

Criterion 3a. Context Sensitive Design; Resiliency — The south bank of the river is at the lowest elevation at this location. Thus, a significant effort would be needed to raise the abutments on both the island and south bank to get to the required abutment elevation, which is between 2,630 and 2,633 feet. Score is Bad (🔴) = -2.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — This location can accommodate future land use changes but does not provide direct access to Les Bois Park. E. Remington Street must be crossed to access Les Bois Park, or one must travel approximately 490 feet north to avoid crossing the road. Score is Good (🟢) = +1.

Criterion 4b. Safety Improvements; Bridge Access Approach Geometry — This location would provide an access opportunity similar to that of the Central Point location and requires improvements to the county-owned property east of E. Remington Street to provide better bicycle, pedestrian, and wheelchair access to the Greenbelt and bridge. Score is Good (🟢) = +1.

Criterion 5a. Constructability; Amount of Construction Needed — A crossing in this location would require the most amount of construction because of its existing elevation and the distance between the Greenbelt and the south channel. New abutments would need to be significantly built up to meet the elevation requirements on both sides of the channel, and the most new Greenbelt of all the location alternatives would be needed (approximately 415 feet). Despite this, no wet work or piles are anticipated with building a bridge at this location. Score is Neutral (○) = 0.

Criterion 6a. Construction Cost — This location would require the greatest amount of construction and vegetation clearing. Both abutments would need to be built up, the most new Greenbelt needs to be constructed, and improvements to the county-owned property adjacent to the area would be needed to improve the quality of Greenbelt access. Score is Neutral (○) = 0.

Criterion 6b. Maintenance Cost — This location requires more than 400 feet of new pathway and significant clearing of vegetation, which will need to be maintained. More maintenance of the county-owned property adjacent to E. Remington Street will also be required. Therefore, more maintenance costs will be associated with this alternative. Score is Poor (🔴) = -1.

Concrete Bulb-Tee Bridge

Criterion 1. Bicycle/Pedestrian Capacity — This bridge type can accommodate a 12-foot clear width. Score is Good (🟢) = +1.

Criterion 3b. Context Sensitive Design; Future Recreational Opportunities — This bridge type can easily be designed with no top or cover, making it easy for floaters and boaters to carry rafts and other large objects to/from the island. The lower chord elevation should not present a problem, as most floaters/boaters will access the island through the deeper, faster north (or main) channel. Score is Good (🟢) = +1.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — A new bridge of this type can be designed with a future vision of Plantation Island and Expo Idaho/Les Bois Park in mind. It can also help facilitate land use changes by being built wider than is currently needed to accommodate the current bicycle and pedestrian demands. Score is Excellent (●) = +2.

Criterion 3d. Context Sensitive Design; Aesthetics — This bridge type allows for a variety of visual design elements, such as line, shape, form, color, and texture. Custom railing design can also be incorporated, adding more visual appeal. However, this type of bridge isn't congruent with the adjacent bridge types. Both the adjacent north channel bridge and West Pedestrian Bridge are metal truss designs. Score is Good (🟢) = +1.

Criterion 4a. Safety Improvements; Bridge Deck Smoothness — This bridge type would have a bare concrete or asphalt wearing surface. If left bare, a visible joint could be seen. If covered with asphalt, some reflective cracking could occur. Regardless, the surface would be much safer than a timber surface. Score is Good (🟢) = +1.

Criterion 5a. Constructability; Amount of Construction Required — This bridge type would require a more significant construction effort than what would be needed if either a new prefabricated bridge was used or if the existing bridge was repurposed. Score is Neutral (○) = 0.

Criterion 5b. Constructability; Duration of Construction — Precast girders would be delivered to the site and erected after construction of the abutments is completed. Thus, it is likely a bridge of this type could be constructed and open to the public in one year. Score is Good (🟢) = +1.

Criterion 6a. Construction Cost — Construction cost is estimated to be in the range of $365,000 to $400,000. This is less than a steel plate girder bridge but more expensive than the other types being considered. Score is Neutral (○) = 0.

Criterion 6b. Maintenance Cost — This type of bridge would require less maintenance than the existing south channel bridge. Good (⭘) = +1.

Steel Plate Girder Bridge

Criterion 1. Bicycle/Pedestrian Capacity — This bridge type can accommodate a 12-foot clear width. Score is Good (⭘) = +1.

Criterion 3b. Context Sensitive Design; Future Recreational Opportunities — This bridge type can easily be designed with no top or cover, making it easy for floaters and boaters to carry rafts and other large objects to and from the island. The lower chord elevation should not present a problem, as most floaters/boaters will access the island through the deeper, faster main channel. Score is Good (⭘) = +1.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — A new bridge of this type can be designed with a future vision of Plantation Island and Expo Idaho/Les Bois Park in mind. It can also help facilitate proposed land use changes by being built wider than what is currently needed to accommodate bicycle and pedestrian demands. Score is Excellent (●) = +2.

Criterion 3d. Context Sensitive Design; Aesthetics — This bridge type allows for a variety of visual design elements, such as line, shape, form, color, and texture. Custom railing designs can also be incorporated, adding more visual appeal. Because this bridge has steel girders, it is more congruent with the adjacent north channel bridge and West Pedestrian Bridge, as both are made of steel trusses. Score is Excellent (●) = +2.

Criterion 4a. Safety Improvements; Bridge Deck Smoothness — This bridge type would have a concrete or asphalt deck with no joints. Score is Excellent (●) = +2.

Criterion 5a. Constructability; Amount of Construction Required — This bridge type would require a more significant construction effort than what would be needed with either a new prefabricated bridge or repurposing the existing bridge. Score is Neutral (○) = 0.

Criterion 5b. Constructability; Duration of Construction — This type of bridge would be fabricated off-site and erected after construction of the abutments. Therefore, it could be constructed and opened to the public in a year. Score is Good (⭘) = +1.

Criterion 6a. Construction Cost — Construction cost is estimated to be in the range of $385,000 to $425,000. The cost associated with this type of bridge is the highest of all the types being considered. Score is Poor (⭘) = -1.

Criterion 6b. Maintenance Cost — This type of bridge, assuming weathering steel is used, would require less maintenance than the existing south channel bridge. Good (⭘) = +1.

Pre-Engineered Bridge

Criterion 1. Bicycle/Pedestrian Capacity — This bridge type can accommodate a 12-foot clear width. Score is Good (⭘) = +1.

Criterion 3b. Context Sensitive Design; Future Recreational Opportunities — This bridge type will have metal struts and bracings overhead along with vertical and diagonal beams, making it more difficult for floaters and boaters to carry rafts and other large objects to/from the island. However, this can be addressed through a larger clear width or higher bridge height. The higher bottom chord elevation should add clearance over the river should floaters/boaters want to float/boat the river's south channel. However, the lower velocity and depths of the south channel will result in most floaters/boaters using the main channel to access the bridge and island. Score is Good (🞊) = +1.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — A bridge of this type is somewhat limited in design features and may not act as a catalyst for changes in land use. However, it will easily accommodate future land use changes to the adjacent properties. Score is Good (🞊) = +1.

Criterion 3d. Context Sensitive Design; Aesthetics — This bridge type does allow for some visual design elements but not as many when compared with the concrete bulb-tee or steel plate girder bridges. However, it is more congruent with the adjacent north channel bridge and West Pedestrian Bridge. Score is Excellent (●) = +2.

Criterion 4a. Safety Improvements; Bridge Deck Smoothness — This bridge type would have a concrete or asphalt deck with no joints. Score is Excellent (●) = +2.

Criterion 5a. Constructability; Amount of Construction Required — This bridge type would require a less significant construction effort than a concrete bulb-tee or steel plate girder bridge. Score is Excellent (●) = +2.

Criterion 5b. Constructability; Duration of Construction — This type of bridge would be preordered, delivered in sections, assembled on-site, and set after the abutments have been constructed. Therefore, most of the construction would be for the abutments, and work could be completed in less than a year. Score is Excellent (●) = +2.

Criterion 6a. Construction Cost — The cost associated with this type of bridge is less than either the concrete bulb-tee bridge or steel plate girder bridge but more expensive than repurposing the existing bridge. Construction cost for the bridge is estimated to be in the range of $335,000 to $370,000. Score is Good (🞊) = +1.

Criterion 6b. Maintenance Cost — This type of bridge would be similar to the maintenance required for the existing south channel bridge. Score is Neutral (○) = 0

Repurposing the Existing Bridge

Criterion 1. Bicycle/Pedestrian Capacity — The bridge is limited to a 10-foot clear width or less and an 8-foot clear height. Score is Neutral (○) = 0.

Criterion 3b. Context Sensitive Design; Future Recreational Opportunities — The bridge is limited in clear width and height, which makes it more difficult for floaters and boaters to carry gear across. The chord elevation should provide adequate clearance when floaters/boaters want to navigate the river's south channel. However, the lower velocity and depth of the south channel will result in most floaters/boaters using the main channel to access the bridge and island. Score is Poor (🞊) = -1.

Criterion 3c. Context Sensitive Design; Facilitating Adjacent Land Use Changes — The existing bridge will neither help nor hurt the future land use changes of Plantation Island and Les Bois Park. Score is Neutral (○) = 0.

Criterion 3d. Context Sensitive Design; Aesthetics — The existing bridge does not allow for new/additional visual design elements, but it is congruent with the adjacent north channel bridge and West Pedestrian Bridge. Score is Good (⭘) = +1.

Criterion 4a. Safety Improvements; Bridge Deck Smoothness — The current deck is made of timbers with an uneven surface. However, it might be possible to retrofit the existing bridge with a concrete or asphalt deck with no joints. While a new metal plank deck with concrete or asphalt wearing surface might replace the existing timber deck, the structure would need to be analyzed for heavier dead loads and could need possible strengthening. Score is Poor (⭘) = -1.

Criterion 5a. Constructability; Amount of Construction Required — This bridge type would require a less significant construction effort than a concrete bulb-tee or steel plate girder bridge and would be similar to the construction needed to accommodate a new pre-engineered one. Score is Excellent (●) = +2.

Criterion 5b. Constructability; Duration of Construction — Repurposing the existing bridge would involve constructing two new abutments, which is very similar to the work completed in the spring of 2019 to reopen the bridge. It might also include structural modifications to allow additional dead loads and/or vehicle loads. Work can be completed, and the bridge opened, in less than a year. Score is Excellent (●) = +2.

Criterion 6a. Construction Cost — This would be the most cost-effective construction option because most of the existing bridge will be reused, saving material costs. However, there will be costs associated with rehabilitation and strengthening the structure to support additional dead loads. Construction cost for this alternative is estimated to be in the range of $145,000 to $190,000. Score is Excellent (●) = +2.

Criterion 6b. Maintenance Cost — This type of bridge would be similar to the maintenance required for the existing south channel bridge. However, due to the age of the bridge (almost 30 years old), it is likely that more maintenance will be needed in the future. Score is Poor (⭘) = -1.

Results

Application of the evaluation process resulted in three of the four North Point alternatives ranking the highest among all those being considered. The highest scoring bridge type, regardless of location, was the pre-engineered bridge. Therefore, the pre-engineered bridge at the North Point location scored the highest of all the alternatives considered (22 points) and is ranked number one, followed by the steel plate girder bridge at the North Point location (19 points), the concrete bulb-tee bridge at the North Point Location (18 points), and the pre-engineered bridge at the Central Point location (18). As a result, a new pre-engineered bicycle/pedestrian bridge at the North Point location was advanced as the preferred alternative. Scores for each of the alternatives considered are provided in **Table 1**.

Preferred Alternative and Project Description

The preferred alternative for a new crossing of the south channel of the Boise River, replacing the existing connection between the Greenbelt on the south side of the river and Plantation Island, consists of a new, pre-engineered prefabricated steel truss bridge placed between where E. Remington Street dead-ends (North Point location) and approximately 170 feet south of where the existing bridge abutments are located. The prefabricated bridge will be a contractor-designed structure with a commercial prefabricated bridge manufacturer providing the design, shop drawings, fabrication, and delivery of the bridge and its components. Bridge abutments will consist of MSE wall blocks with soil-reinforcing geogrid to provide the foundation for reinforced cast-in-place concrete footing pads. The MSE wall system will be contractor-designed using an MSE wall supplier. This is similar to how the "West Bicycle/Pedestrian Bridge" located east of Eagle Island was designed, procured, and constructed.

The new bridge will be connected to the Greenbelt by constructing approximately 165 feet of new pathway on Plantation Island. Additionally, the connection to the Greenbelt on the south side of the river will be improved to provide better Americans with Disabilities Act (ADA) compliant access (i.e., pedestrian ramp) connecting the Greenbelt to the surface roadway network by way of E. Remington Street. Wayfinding signage will be added to the south bank access to help guide bicyclists and pedestrians to/from the Greenbelt and its roadway network connections at E. Remington Street.

Example of wayfinding signage to be included as part of the project.

This project will provide a safer and more resilient bridge for bicyclists and pedestrians, accommodate emergency service and maintenance vehicles, and locate the crossing closer to E. Remington Street, which provides direct access to Les Bois Park, the surface street network, and transit stops south of the river. It is needed because the south channel bridge is a critical component of the Greenbelt pathway system that requires more resilience to high water events. Additionally, a new bridge would provide better island access for maintenance and emergency vehicles and support future land use and recreational opportunities associated with the redevelopment of Les Bois Park.

Conceptual Design Elements

The dimensions of the preferred alternative are 120' long x 12' clear between railings, with an approximate out-to-out width of 14'. The estimated clear height between the wearing surface and the bottom of the top cross framing members is 10'-6". The cross section is a steel truss, providing for maximum freeboard beneath the bridge bottom chord to the water surface elevation. The truss will be cambered upward slightly at midspan to provide a slight arching appearance. The steel truss frame and other structural framing elements will be fabricated from high-strength (i.e., $F_y = 50$ ksi), low-alloy, enhanced atmospheric corrosion resistant (weathering) steel, providing for a weathered appearance and protective coating without the need for painting. The deck and wearing surface will consist of corrugated metal deck pan with a cast-in-place and reinforced concrete deck, which will act as the final wearing surface.

Design of the bridge will be in accordance with the current edition of the AASHTO *LRFD Bridge Design Specifications* and the AASHTO *LRFD Guide Specifications for the Design of Pedestrian Bridges*. A uniform pedestrian loading of 90 pounds per square foot (psf) or an H10 design maintenance vehicle (20,000-pound vehicle, distributed with 16,000 pounds to the rear axle and 4,000 pounds to the front axle) should be used as the loading specification, based on whichever one produces the maximum load effects. Pedestrian loads and vehicle loads are not combined, and dynamic load allowance (impact) should not be considered.

The MSE modular block wall system will utilize geogrid reinforced backfill to provide strength and stabilize the soil behind it. Reinforced concrete footing pads will be designed for the recommended bearing pressures as determined during design. Structure dead load and live load reactions and bearing details are typically provided by the prefabricated bridge manufacturer for design and detailing of the footing pads. The walls and reinforced cast-in-place concrete footings will be located to allow the final grade of the stream banks to be at the same profile, providing no change to the backwater present in the south channel of the river. Abutment walls and supporting footing pads will be protected from scour and stream degradation by a layer of riprap keyed into the river channel bottom, extending both upstream and downstream of the bridge location and extending vertically to the 100-year flood stage elevation. Heavy riprap armoring of the stream banks will protect the MSE wall from being eroded or undermined.

It will be critical as part of the preliminary and final design process to provide a site survey to verify the assumptions used, appropriately site the bridge, provide necessary freeboard over stream flows, and locate the MSE retaining walls and concrete footing pads. A geotechnical investigation will be required to provide the geotechnical parameters necessary for design. Final design of the footings and supporting MSE walls will dictate the final actual bridge length.

Impacts to Property and Right-Of-Way Needs

Table 2 lists the two parcels of land that will be affected by the construction of a new south channel river crossing with improved Greenbelt connections. They consist of the Plantation Island parcel (No. S0630315200) owned by the Idaho Park Foundation Inc. and the northeast portion of the Les Bois Park parcel (No. S0630336301), owned by Ada County. The formal property descriptions are:

- Plantation Island:
  - Parcel Number 5200 of E2SW4 SEC 30 4N 2E #8949561
  - Township/Range/Section: 4N2E30
  - Address: N. Plantation River Dr., Garden City
- Les Bois Park:
  - Parcel Number 6301 of SW4 SEC 30 4N 2E #336300-B
  - Township/Range/Section: 4N2E30
  - Address: 5610 N. Glenwood St., Garden City

Both parcels are currently in public right-of-way and being used for the existing south bank Greenbelt and river crossing. Therefore, no new public right-of-way is needed to construct the new crossing and Greenbelt connections. **Figure 12** shows the properties and the estimated area affected by the project.

Figure 12. Preferred Alternative Concept-Level Property Impacts

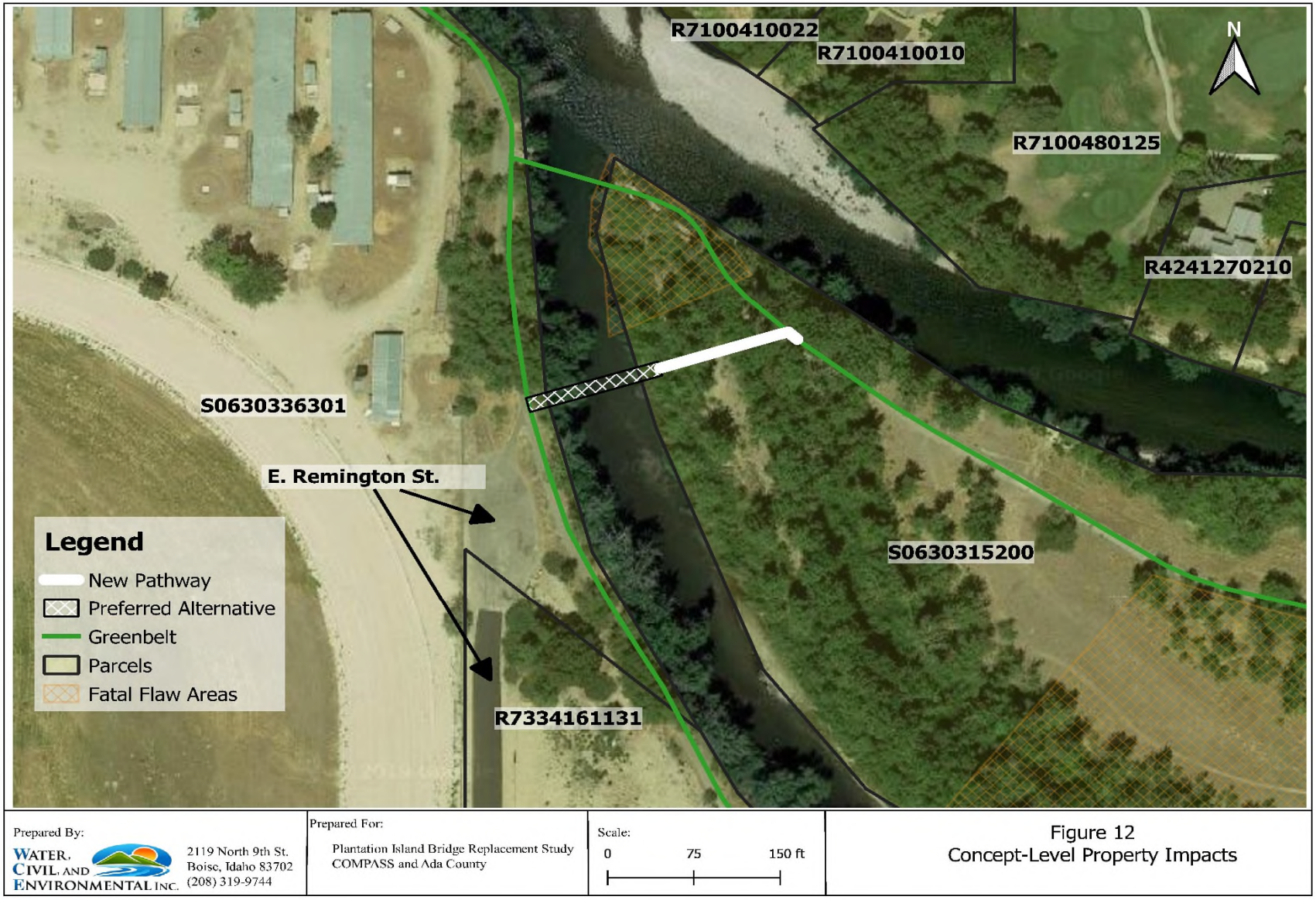


Table 2. Summary of Properties Affected

Parcel	**Size** (in acres)	**Location** (Township/Range/Section)	**Owner**	**Acquisition Cost**
Plantation Island (No. S0630315200)	5.93	4N2E30	Idaho Park Foundation Inc.	$0*
Les Bois Park (No. S0630336301)	89.93	4N2E30	Ada County – Treasurer's Office	$0*

*Acquisition cost assumed to be $0 because both parcels affected by the project are within existing public right-of-way.

Hydraulic Analysis of Preferred Alternative

A one-dimensional (1D) unsteady flow hydraulic modeling analysis of the preferred alternative was conducted using the U.S. Army Corps of Engineers' HEC-RAS software. The model was based on the same model developed for the existing south channel bridge except for new bridge cross sections being placed approximately 170 feet upstream from the existing pedestrian bridge.

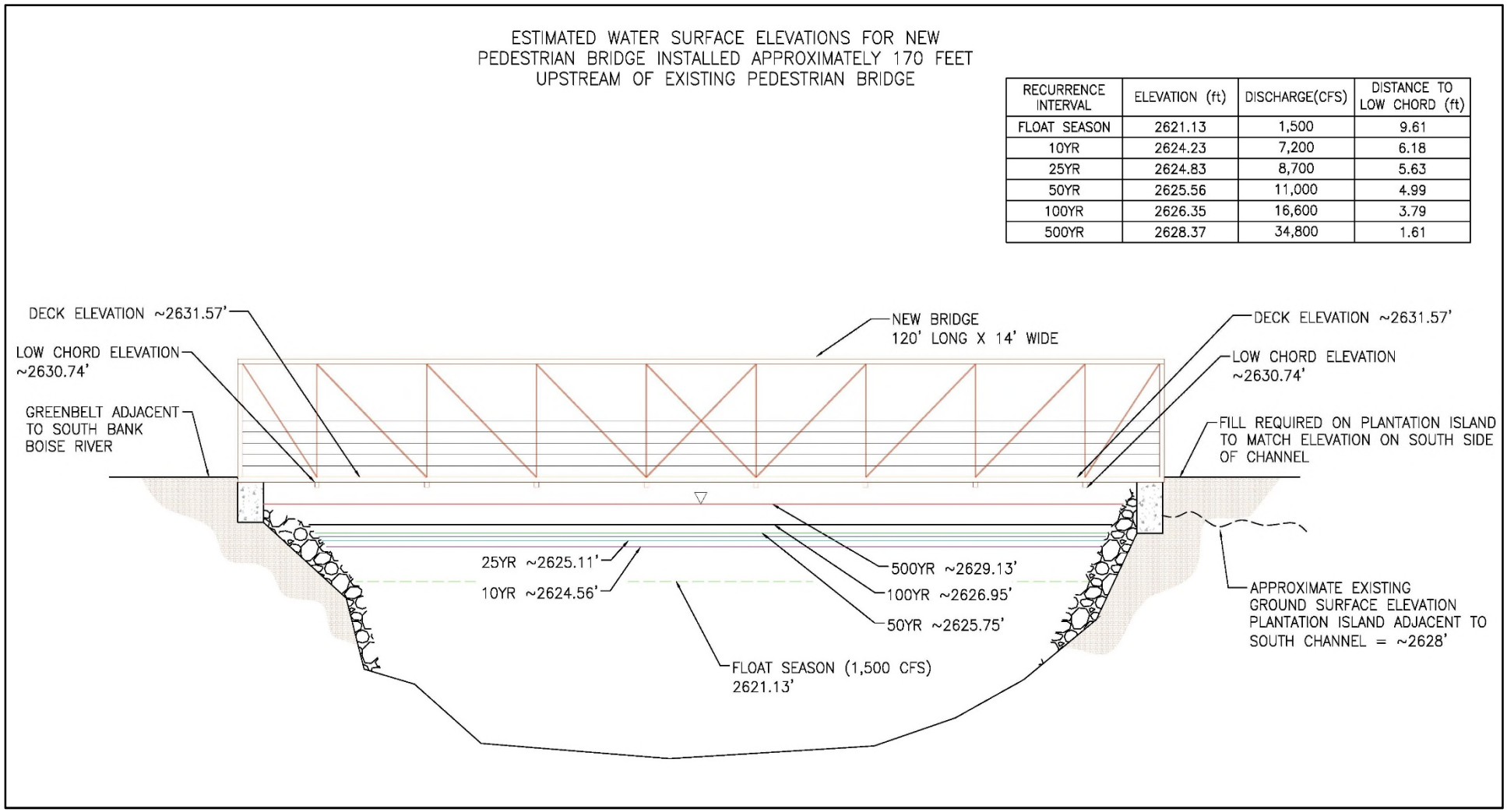
The intent of the analysis was to provide some information on how the floodplain could be affected by the preferred alternative and how different flood frequency events, including a 100-year flood event, may affect both the abutments and bridge deck. **Figure 13** shows the results of the hydraulic analysis. The model showed the preferred alternative will provide sufficient clearance between the low chord of the bridge and the water surface elevation at both the 100-year and 500-year flood occurrence intervals.

Additionally, the location of the abutments, in particular the island abutment, are better protected from the velocities within the main channel of the river, which has caused erosion and scour around the existing island-side bridge abutment. However, the model did show that the grading required on the island to ramp down from the bridge will require fill material be placed within the floodplain. This triggers a no-rise analysis to be conducted to meet FEMA requirements. The model prepared for this report does not show that a rise in water surface elevations would occur upstream or downstream of the preferred alternative due to the width of the floodplain and the limited amount of fill that would be needed for raising the elevation of the abutment location on the island side of the bridge. Overall, the analysis supports the conclusion that the preferred alternative provides a more sustainable location for the bridge to withstand high water events with minimal effects on the floodplain.

Construction

Construction will be limited to the bridge abutments, footings, and pathway connections (both island side and south bank side). The bridge itself will be constructed and assembled off-site and placed onto the footings/abutments using a crane. This is very similar to the level of effort needed to replace the existing bridge in the spring of 2019.

Figure 13. Hydraulic Analysis of the Preferred Alternative



RECURRENCE INTERVAL	ELEVATION (ft)	DISCHARGE(CFS)	DISTANCE TO LOW CHORD (ft)
FLOAT SEASON	2621.13	1,500	9.61
10YR	2624.23	7,200	6.18
25YR	2624.83	8,700	5.63
50YR	2625.56	11,000	4.99
100YR	2626.35	16,600	3.79
500YR	2628.37	34,800	1.61

Methods and Materials

The prefabricated structure will be designed and built off-site by a bridge manufacturer and delivered to the site in sections, similar to the way the new West Pedestrian Bridge was constructed. The truss-style bridge will be made of high-strength weathering steel, eliminating the need for future painting. Bridge sections are assembled on-site in a predetermined laydown area using bolted field splices. Once assembled, the bridge is picked up with a crane, swung into place, lowered onto the concrete footing bearing pads, and bolted down. Reinforcing will be placed in the stay-on-place metal deck forms for the cast-in-place concrete deck, and the bare concrete surface will act as the final wearing surface.

The MSE wall supporting the bridge footings provide a reinforced soil foundation that does not require a deep foundation. Alternating layers of compacted granular fill and geosynthetic reinforcement provide support for the bridge and create an efficient composite material that is internally stable and capable of carrying bridge loads significantly higher than those on native material. Construction of the wall system, pathway, and south bank access involve basic earthwork methods and practice, without requiring highly skilled labor, and employs commonly available equipment and materials. Once built, they are durable and easy to maintain.

Schedule and Milestones

An estimate of construction duration was prepared following the ITD publication *Contract Time Determination in Project Development* (July 2011). Construction duration is controlled by the prefabricated bridge, which requires a design and detailing period, a period of shop plan review, and then a period for the actual fabrication. Construction is estimated to require 17 weeks and preliminary engineering and design is estimated at six months (or 24 weeks). **Figure 14** presents the conceptual project development schedule based on these assumptions and estimates.

Cost Estimate

A detailed conceptual project cost estimate and ITD 1150 form are provided in **Appendix B**, and a cost summary is provided in **Table 3**. It was prepared for the preferred alternate using typical ITD bid items and follows the bid recently used to construct the West Pedestrian Bridge downstream from the Glenwood bridge (bid date 9/30/2014). Actual project bids were obtained from ITD Bridge and consisted of four bidders. The bid cost for each item was averaged for the four bids and then averaged for the three low bids and three high bids, providing a range of conceptual unit costs. The conceptual lump sum unit cost for the prefabricated bridge ($312,000) was based on a cost per square foot derived from the West Pedestrian Bridge bid prices. It was increased by 10% over the raw unit cost to account for future fluctuations in material and labor costs associated with bridge fabrication.

Figure 14. Conceptual Project Schedule

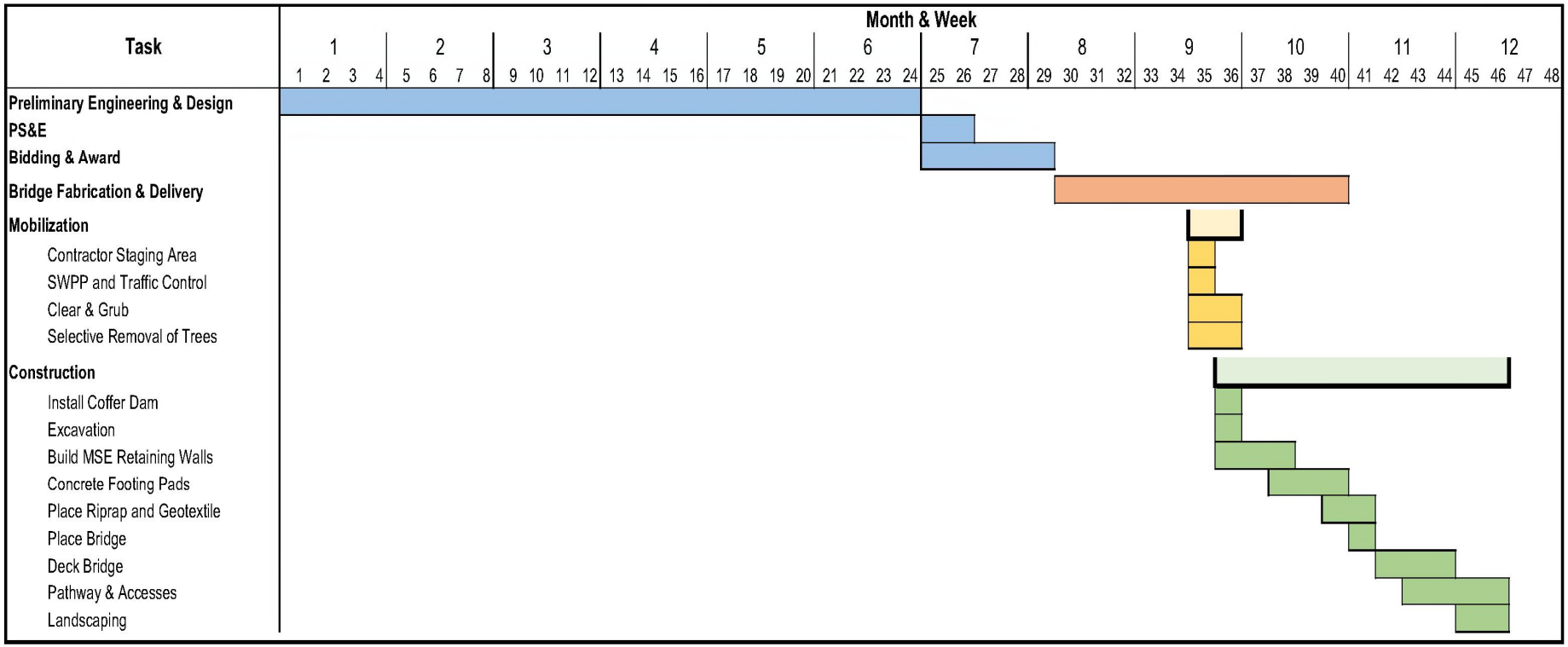


Table 3. Breakdown of Conceptual Project Cost Estimate

Category	**Activity/Item**	**Conceptual Cost Estimate**
Earthwork	*Clearing and Grubbing* *Selective Removal of Trees* *Removal of Bituminous Surface* *Granular Borrow* *Water for Dust Abatement*	$18,000
Pavement and Base	*Aggregate Base* *Plant Mix Asphalt*	$11,000
Bridge	*Excavation* *Dewatering* *Pre-Engineered Metal Bridge* *Cast-in-Place Concrete Footings* *MSE Retaining Wall* *Riprap and Geotextile*	$436,000
Temporary Traffic Control	*Signs and Barricades*	$1,000
Landscaping	*Topsoil* *Seed Bed Preparation and Seeding* *Mulching*	$9,000
Other Items	*Stormwater Pollution Prevention* *Survey* *Contractor Staging*	$38,000
Construction Subtotal		$513,000
Mobilization		$51,000
Preliminary Engineering and Design		$62,000
Construction Engineering and Contingencies		$113,000
Total		**$739,000**

Concept-level unit costs were compared with the applicable bid item in ITD's *Average Price Report Spreadsheet* sorted for projects between 2016 and 2019 and adjusted as needed. Conceptual bid items were summarized for inclusion in the ITD 1150 (Project Cost Summary Sheet) form. No costs ($0) are associated with property acquisition, as the parcels affected by the project are within current public right-of-way. Mobilization was estimated at 10% of the construction cost. Since this is a planning level estimate, it may not account for all the bid items and quantities necessary. To try and account for this, construction engineering and contingencies were estimated to be 20% of construction cost plus mobilization. Preliminary engineering and design were estimated at 12% of the cost of construction (Item 15 =$513,000), which results in a $62,000 cost estimate. Thus, the estimated total concept-level project cost is estimated at $739,000. It should be noted that rises in construction costs could outpace the contingency applied to the conceptual cost estimates presented, making it less conservative in the future.

Funding Strategies

There are several funding possibilities for this project, but all fall into one of three categories: federal funding, state/local funding, or public private partnership (P3). It is likely that more than one of these sources will be needed to fully fund the project.

Federal Funding Opportunities

These sources of funding include federal grants and/or federal transportation funds administered through ITD. All federal funding sources require a minimum local-dollar match of 7.34% or more, and most successful applications for federal funding tend to have matching percentages in excess of 20%.

Applicable competitive federal transportation funding opportunities include:

- **Better Utilizing Investments to Leverage Development Transportation Discretionary (BUILD) Grants.** BUILD Transportation grants are for investments in surface transportation infrastructure and will be awarded on a competitive basis to projects that have a significant local or regional impact. BUILD funding can support roads, bridges, transit, rail, ports, or intermodal transportation. This program requires projects seeking funds to compete nationally against transportation projects of all types. Therefore, it is unlikely that the south channel bridge project would be selected for funding.
- **Surface Transportation Block Grant (STBG) Program.** These grants provide a flexible funding source that may be used by states and local governments for projects that preserve and improve the conditions and performance of any highway, bridge, tunnel, road, pedestrian, or bicycle facility. Applicants compete for funding nationally; therefore, it is unlikely that the south channel bridge project would be selected for a grant.
- **Transportation Infrastructure Finance and Innovation Act (TIFIA) Credit Assistance Program.** This program helps finance projects by providing direct loans, loan guarantees, and lines of credit for infrastructure projects, such as pedestrian and bicycle networks. TIFIA provides credit assistance for qualified projects of regional and national significance. The south channel bridge project could be considered regionally significant and thus qualify for assistance. However, this program would require that the cost of the project be paid back over time, requiring annual local funding.

Sources of federal transportation funding administered through ITD's State Highway Account include:

- **Surface Transportation Program (STP).** ITD administers this federal program, which includes funding for any transportation project statewide. Projects must apply and compete for these funds. It is divided into several sub-programs based on geographic location: ITD (or statewide), Transportation Management Area (TMA – specific urban areas with populations more than 250,000), Urban (areas with populations more than 50,000 but less than 250,000), and Rural (areas less than 50,000 in population). Given that this project is not on the state system and located in the Ada County TMA, the only applicable STP program is STP-TMA.
- **Transportation Alternatives Program (TAP).** ITD's TAP provides federal funding for non-motorized project improvements statewide. It, too, is divided into several sub-programs based on geographic location: ITD (or statewide), Transportation Management Area (TMA – specific urban areas with populations more than 250,000), Urban (areas with populations more than 50,000 but less than 250,000), and Rural (areas less than 50,000 in population). Local jurisdictions within the state must compete for TAP funds, and projects must support "alternative" transportation options. This project could pursue both TAP-Urban and TAP-TMA funding through ITD.
- **Local Bridge Program.** This program replaces or rehabilitates local (non ITD) bridges of all types. Local highway districts or cities can access these funds for projects, but it is a competitive application process. Because it is open to all local bridge projects, the south channel bridge project would likely not be competitive in this program.

Other applicable federal grant programs include:

- **Community Development Block Grant (CDBG) Program.** This federal program is administered at the state level by the Idaho Department of Commerce. There are many types of eligible projects, including public infrastructure, such as public transit, bicycle, and pedestrian facilities. Competitive projects are ones that improve blighted areas and/or help to serve low- to moderate-income populations. The south channel bridge project might be a candidate for this funding source, as the area near the project is somewhat blighted and serves an area with low- to moderate-income families.
- **Rivers, Trails, and Conservation Assistance Program.** This U.S. National Park Service program partners with community groups, nonprofits, tribes, and state and local governments to design trails and parks, conserve and improve access to rivers, protect special places, and create recreation opportunities. This could apply to the south channel bridge project if coupled with improvements to Plantation Island and/or recreational improvements to county property adjacent to the south bank of the Boise River.

State/Local Funding Opportunities

These sources of funding are provided to municipalities through fees and taxing districts or are donated by individuals and businesses to nonprofit organizations. State/local funding sources for this project could include:

- **Ada County Highway District (ACHD) Community Programs**. Typically, this program funds the construction of bike lanes, pedestrian crossings, sidewalks, and other projects with an economic development component to them. Since school routes are ACHD's top priority for this program, most funds are allotted for those types of projects. However, other types of pedestrian, bicycle, safety, mobility, and connectivity projects in Ada County are evaluated and funded through an

application process. Applications may be submitted by either individual citizens or neighborhood associations/groups. In FY 2019, ACHD programmed $9.8 million to capital projects of this type. This represents approximately 14% of their capital construction budget, which is funded through development impact fees, taxes, and vehicle registration fees.

- **Local Government Funds**. This is funding provided from a city's or county's budget, often from the entity's General Fund. Other possible sources of local government funding sources include development impact fees, user fees, or enterprise funds, such as those provided to the Expo Idaho Fairgrounds. This may be a good source of funding for the local match needed to secure federal funding.
- **Fund-raising and Donations.** A grant for the project could be issued to either Ada County or Garden City by a 501(c)(3) organization, such as the Idaho Foundation for Parks and Lands. These not-for-profit organizations could solicit donations from private individuals, much like the effort undertaken to provide the match required for the FEMA grant secured by the Idaho Foundation for Parks and Lands to have the abutments repaired and the bridge reset in 2019.
- **Local Bonds.** Local governments could choose to put up a bond for the project secured by tax dollars. The size and scope of this project, however, does not lend itself well to establishing and passing a bond because many people in Ada County and/or Garden City do not or will not use the bridge enough to justify voting in favor of the project.

Public Private Partnerships (P3)

A P3 could be an option for funding this project. Development of the Les Bois Park property or other adjacent property could lead to an agreement with a developer to help fund improvements to the Greenbelt and the bridge as part of their project. It is unlikely that a private entity would fund all the improvements needed. Thus, some local or federal funding would still be needed. The organizational strategy for the P3 would depend on the development/redevelopment plan for the property adjacent to the Greenbelt and the bridge.

Operations and Maintenance

The ongoing operations and maintenance of the south channel bridge and adjacent Greenbelt will continue to be provided as it is today by the Ada County Parks and Waterways Department, Garden City Parks and Facilities Division, and/or the Idaho Foundation for Parks and Lands. Funding will come from the city's or county's general fund, user fees, and/or donations provided to the foundation.

Next Steps

Before this project can proceed into design and construction, it must be funded and included in the applicable work programs and/or Transportation Improvement Programs (TIPs). COMPASS and Ada County will identify the most appropriate source of funding at the appropriate time. As previously noted in this report, the existing south channel bridge was reset in 2019 using a FEMA grant and matching funds secured through the Idaho Foundation for Parks and Lands and private donors. The riprap armament placed onto Plantation Island as part of this project will protect the abutments from further erosion due to future high-water events. Thus, the timing and need for a new south channel bridge will depend on several factors,

including the condition of the existing bridge, the condition of Plantation Island, and the riprap protecting the bridge abutments. The condition of the bridge, abutments, island, and riprap should be monitored every year to identify when this project might become a priority.

Once the project has secured funding and is programmed, design tasks can move forward. These will include permitting, an appropriate environmental evaluation, and a public involvement effort. A public involvement plan and public outreach will be needed as the project moves through the design phase and into the construction phase.

Acknowledgments

This pre-concept report was developed under the guidance of a Project Team composed of:

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  - Kathy Parker
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  - Zach Peipmeyer, PE
  - Trevor Kesner
  - Jennifer Tomlinson
- City of Garden City
  - Jenah Thornborrow
  - Colin Schmidt
- Idaho Foundation for Parks and Lands
  - Judy Peavey-Derr
- Vander Boegh Engineering
  - Don Vander Boegh, PE
- Water, Civil, and Environmental Inc.
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  - Jay Witt, PE

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Appendix A. Environmental Scan

ENVIRONMENTAL SCAN
FOR THE
PLANTATION ISLAND BRIDGE/PATH REPLACEMENT
PRE-CONCEPT REPORT

PROFESSIONAL SERVICE AGREEMENT 2019-11 TASK ORDER

July 24, 2019

Prepared for:
Community Planning Association of SW Idaho (COMPASS)
700 NE 2nd Street, Suite 200
Meridian, ID 83642

Prepared by:

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ENVIRONMENTAL SCAN
Plantation Island Bridge/Path Replacement Pre-concept Report

FIGURES

APPENDICES

1.0 INTRODUCTION

The Boise River Greenbelt (Greenbelt) is a 25-mile tree-lined pathway that follows the Boise River, connecting three cities (Eagle, Garden City, and Boise). In 1990, two separate bridges spanning the river's north and south channels by the Greenbelt on Plantation Island were installed. The Idaho Foundation for Parks and Lands, a private, nonprofit organization, owns both bridges as well as Plantation Island.

On April 3, 2017, the south channel bridge between the west end of Plantation Island and the south side of the river was removed because of extensive erosion caused by high-water flows. During that month, parts of the bridge's abutment broke loose and fell into the river as did part of the Greenbelt on Plantation Island.

In 2018, the Idaho Foundation for Parks and Lands secured funding through the Federal Emergency Management Administration (FEMA) to place the removed bridge back in its original location and reestablish the critical north-south connection. It was re-opened to the public on March 25, 2019, but given the changes to Plantation Island in the vicinity of the bridge abutments, it is likely it will need to be removed again sometime in the future when high river flows occur.

2.0 PURPOSE

Ada County wants to evaluate the long-term viability of the existing bridge, particularly during future high-water events, and consider options that include relocating the south channel bridge and/or replacing it with a new one. This environmental scan has been prepared to identify any potential environmental issues or concerns that may need further analysis should a future project utilize federal funding and require NEPA documentation. It summarizes the conceptual environmental issues and concerns in the project area, which includes the three general locations that were identified as alternatives: the north point, midpoint, and south point locations. The north point location would relocate the crossing downriver from its current location to a location near the end of E. Remington Street, avoiding the portion of the island that will continue to erode during high water flow events (i.e., the existing location); the mid-point location would relocate the crossing farther downstream, southeast of the end of E. Remington Street; and the south point location would relocate the crossing as far downstream as practical, attempting to maintain a bridge length of approximately 100 feet. Figures 1 and 2 show the existing bridge location as well as the alternative locations under consideration.

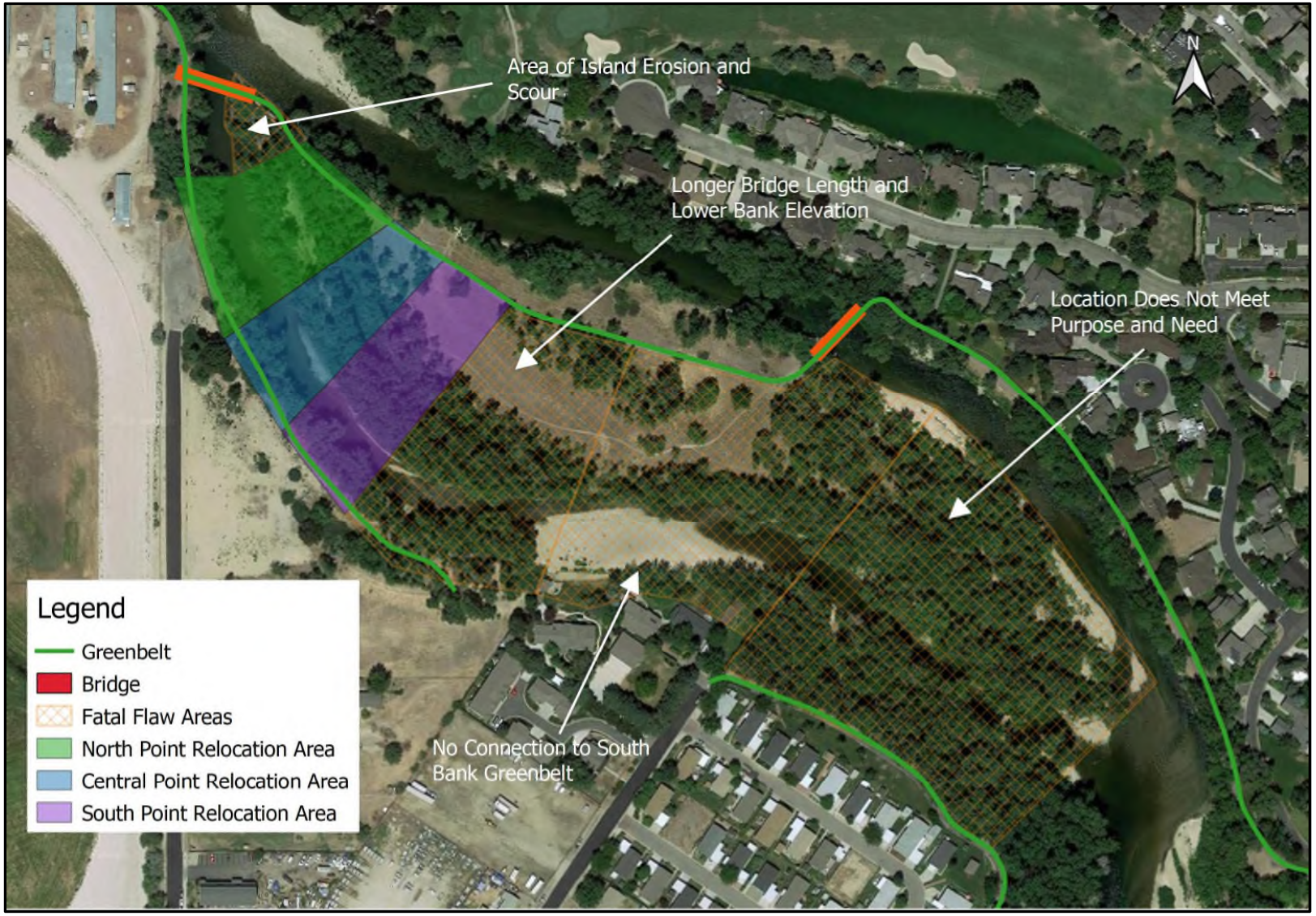
The environmental scan includes the following topics:

- General Land Use
- Cultural Resources
- Section 4(f) Properties
- Biological Resources
- Water Resources
- Noise
- Environmental Justice and Neighborhood Services
- Hazardous Materials

The scan consisted of desktop reviews of the above-listed resources. Data from these reviews are summarized in the following paragraphs. It is important to note that the purpose of the scan is to identify potential environmental issues for consideration as the project moves beyond the conceptual stage. No field surveys, assessments, or official agency coordination has been conducted. Each topic summarized below includes a description of the scope of research conducted.

Figure 1: Project Location

Figure 2: Alternative Locations Under Consideration



3.0 GENERAL LAND USE

3.1 Scope

Land use information was gathered by using readily available online mapping services, specifically Google Earth, in addition to the City of Garden City's current zoning map and comprehensive land use plan.

3.2 Summary of Findings

Plantation Island exists as undeveloped land except for the Boise River Greenbelt, which runs along its northwestern side. Areas forested with cottonwood, willow, and river birch trees are mainly located along the southern edge of the island; the center of the island has been cleared. From the south, the Boise River Greenbelt follows the northern channel of the Boise River along its northern bank, crosses onto Plantation Island near its midpoint, and continues to the northern end of the island. The Greenbelt continues directly to the west of the northern end of the island along the southern bank of the Boise River, with a short extension running to the south. Single-family residential developments exist on the north bank of the north channel as does the Plantation Golf Course. A mainly cleared, empty lot is located between the northern end of E. Remington Street and a single-family residential development located along the southern bank of the southern channel. Horse stables associated with the idle Les Bois Park racetrack are located directly west of where the south channel bridge connects the island to the south bank of the Boise River. A portion of the track and E. Remington Street are also adjacent to the river's south channel.

The northern portion of Plantation Island and the north bank of the river are currently zoned R-2 (medium-density residential), while the southern portions of the island and south bank are zoned R-3 (higher density residential). There are no plans to develop the island, as it sits within the floodway of the Boise River, but Garden City has considered turning it into a seven-acre park. Future land use adjacent to the river is not likely to change, as most of the adjacent land is in the flood plain for the Boise River. Garden City's comprehensive land use plan shows the north bank as green space (golf course) or low-density residential. The south bank adjacent to the project area is planned to be mixed-use residential.

4.0 CULTURAL RESOURCES

4.1 Scope

The scope of work for the cultural resources portion of the environmental scan included the following:

- A search for properties in the project area on the National Register of Historic Places (NRHP).
- A desktop survey of the project area in search of properties that may exceed 40 years of age.

This task does not meet the requirements of a Section 106 evaluation. No field surveys were conducted.

4.2 Summary of Findings

The NRHP database was researched for Garden City, Idaho. No sites were listed in the database within or adjacent to the project area (NPS, 2019).

Ada County assessor's information was researched online to identify properties with structures that are more than 45 years old. Generally, structures may become eligible for listing in the NRHP when they are 50 years old. Five years were added for this scan to allow time for project development in case certain properties may reach NRHP-eligible age by the time construction occurs. No structures more than 45 years of age were located in the project area. It should be noted, however, that the horse stables associated with Les Bois Park, located across the Boise River and directly to the northwest of the proposed project area, were constructed in the 1970s and may be eligible for inclusion in the NRHP (World Casino Directory, 2019). These stalls, however, are not located in the project area and it is not anticipated that they would be affected by the project.

5.0 SECTION 4(F) PROPERTIES

Section 4(f) of the Department of Transportation Act of 1966 protects publicly owned parks, publicly owned recreational areas, publicly owned wildlife and waterfowl refuges, and publicly owned historic sites. It also protects publicly owned bike paths (or portions thereof) designated or functioning primarily for recreation. If the publicly owned bike path is primarily used for transportation and an integral part of the local transportation system, the requirements of Section 4(f) do not apply since it is not a recreational area. As stated previously, the Idaho Foundation for Parks and Lands owns Plantation Island and the south channel bridge. Ada County owns the portion of the Greenbelt where the south channel bridge connects the island to the south bank of the Boise River. The Greenbelt started out as a recreational pathway but has since grown into an integral part of the valley's multimodal transportation system. Whether or not Section 4(f) applies, the purpose of the proposed project is to maintain the continuity of this pathway.

6.0 BIOLOGICAL RESOURCES

6.1 Scope

The scope of work for assessment of biological resources in the area included the following:

- Obtaining an official species list from the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) service.
- Reviewing the trust resources report for the project area from the USFWS for information regarding migratory birds and other species of concern in the area.

6.2 Summary of Findings

The threatened and endangered species review included the USFWS official species list issued for the project by IPaC on April 12, 2019 (USFWS, 2019a, Consultation Code: 01EIFW00-2019-SLI-0986). The list, which is included in Appendix A, included two threatened species and no endangered species under the Endangered Species Act that may occur or may be affected by the project (Table 1). The report did not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries, as the USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

Table 1. Species Listed in Project Official Species List (Consultation Code: 01EIFW00-2019-SLI-0986, April 12, 2019)

Species Name	Scientific Name	Federal Status
Yellow-billed Cuckoo	*Coccyzus americanus*	Listed Threatened
Slickspot Peppergrass	*Lepidium papilliferum*	Listed Threatened

In Idaho, the yellow-billed cuckoo mainly lives in the canopies of cottonwood-dominated forests that line larger rivers running through arid country (Cornell Lab of Ornithology, 2015). The proposed project area is located in such habitat. Critical habitat has been proposed for the yellow-billed cuckoo; however, none of it is located in Ada County. This project may affect the yellow-billed cuckoo.

Slickspot peppergrass only grows in the sagebrush-steppe habitats of southwestern Idaho, including the Snake River Plain, Owyhee Plateau, and the adjacent foothills. The proposed project is located in a partially developed riparian habitat with riparian trees, such as cottonwood and willow. Critical habitat has been proposed for slickspot peppergrass in Ada County; however, it does not exist in the proposed project area (USFWS, 2019a). This project would likely not affect slickspot peppergrass.

The Migratory Bird Treaty Act (MBTA) protects migratory birds, including their nests. The IPaC resource list for the project area identifies eight migratory birds that may occur in the project area (USFWS, 2019a). Nesting and breeding habitat for these birds may be disturbed as a result of project construction. If shrubs

and/or trees require removal during construction, care should be taken to protect potential migratory bird habitat. Per the USFWS migratory bird national standard conservation measures for vegetation removal, trimming and grading of vegetated areas should be scheduled outside of the peak bird breeding season to the maximum extent practicable (USFWS, 2019a).

There are no USFWS refuge lands or fish hatcheries within the project area.

7.0 WATER RESOURCES

7.1 Scope

The scope of work for the water resources portion of the environmental scan included the following:

- A desktop survey of available mapping and photographs to identify areas where there is potential for wetlands or water bodies/features.
- A review of the National Wetland Inventory (NWI), as maintained by the USFWS.
- A review of Natural Resource Conservation Service (NRCS) soil data to identify hydric soils in the area.

7.2 Summary of Findings

The Boise River flows around Plantation Island. The NWI indicates that freshwater forested/shrub wetland habitat, classified as PFO1C (Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded) is located in the project area along the southern side of Plantation Island and the southern bank of the south channel. A small, approximately 305-foot, 0.38-acre riverine habitat, classified as R3USC (Riverine, Upper Perennial, Unconsolidated Shore, Seasonally Flooded) is also located on the northernmost point of the project area on Plantation Island between the freshwater forested/shrub wetland habitat and the riverine south channel. The southern channel itself is classified as R3UBH (Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded; USFWS, 2019b).

NRCS soil data for the project area indicated the presence of three types of soil complexes (Notus-LesBois, Urban land-Notus, and Urban land-Ballentine). Only minor components of the Notus-LesBois and Urban land-Notus complexes have hydric status per the NRCS web soil survey (NRCS, 2019).

The potential wetlands in the project area have not been fully delineated; however, they could be potentially affected by the proposed project.

8.0 NOISE

8.1 Scope

The assessment for noise in this environmental scan consisted of a review of Garden City's municipal code for specific construction timing requirements to reduce nuisance noise conditions.

8.2 Summary of Findings

City code 8-2C-24 (Code Publishing Co., 2019) is related to adverse effects, such as noise from flex or light industry. It states that noise detectable by the human senses without the aid of instruments shall be mitigated through setbacks, buffers, sound attenuation, and/or hours of operation. The operation of the Greenbelt is limited to daylight hours. Therefore, no additional noise effects are anticipated with the project.

9.0 ENVIRONMENTAL JUSTICE AND NEIGHBORHOOD SERVICES

9.1 Scope

The scope for identifying potential environmental justice and neighborhood services issues for the project included the following:

- Review of census data for the project area to identify potential disadvantaged populations.
- Review of estimated population data for the project area.
- Review of land use in the area to identify potential for disproportionate effects to disadvantaged populations.
- Review of neighborhood services in the area that may be affected by the project.

9.2 Summary of Findings

U.S. Census data were reviewed for the project area. The project footprint is located within Ada County census tracts 3.03 (properties along the northern bank of the Boise River) and 11 (properties along the southern bank of the Boise River). Demographics are summarized in Table 2.

Table 2. Summary of Project Area Census Data

Demographic Indicator	Year(s)	Census Tract 3.03[1,2]	Census Tract 11[1,2]	Census Tracts 3.03 & 11[1,2]	Garden City[1,2]	Ada County[3]	State of Idaho[3]
Population	2017 (estimate)	2,062	4,153	6,215	11,637	456,849	1,716,943
	2010	2,087	4,093	6,180	10,972	392,365	1,567,582
White alone, percent	2017 (estimate)	91.9	82.1	85.4%	91.5%	90.1%	90.0%
	2010	89.9	75.2	80.2%	86.2%	90.3%	89.1%
Black or African-American alone, percent	2017 (estimate)	1.2	0.4	0.7%	0.6%	1.3%	0.7%
	2010	1.0	1.5	1.3%	1.0%	1.1%	0.6%
American Indian and Alaska Native alone, percent	2017 (estimate)	0.8	0	0.3%	0.1%	N[4]	1.3%
	2010	0.7	1.6	1.3%	1.1%	0.7%	1.4%
Asian alone, percent	2017 (estimate)	0.5	0.5	0.5%	0.4%	2.4%	1.3%
	2010	2.0	1.8	1.8%	1.4%	2.4%	1.2%
Native Hawaiian and other Pacific Islander alone, percent	2017 (estimate)	0	0	0.0%	0.0%	N[4]	0.2%
	2010	0.3	0	0.1%	0.1%	0.2%	0.1%

Demographic Indicator	Year(s)	Census Tract 3.03[1,2]	Census Tract 11[1,2]	Census Tracts 3.03 & 11[1,2]	Garden City[1,2]	Ada County[3]	State of Idaho[3]
Two or more races, percent	2017 (estimate)	1.9	8.5	6.3%	4.0%	4.1%	3.1%
	2010	4.5	3.9	4.1%	3.1%	2.8%	2.6%
Hispanic or Latino, percent	2017 (estimate)	12.4	24	20.2%	11.1%	8.2%	12.4%
	2010	5.2	25.3	18.5%	13.8%	7.1%	11.2%
White alone, not Hispanic or Latino, percent	2017 (estimate)	83.3	71.9	75.7%	85.9%	84.5%	82.0%
	2010	87.2	68.1	74.5%	81.2%	86.5%	84.0%
Persons below poverty level, percent	2017 (estimate)	17.6	28.7	25.0%	14.6%	11.4%	12.8%

[1]Source for 2017 estimate: U.S. Census Bureau, 2013–2017 American Community Survey 5-Year Estimates. Retrieved from American Fact Finder, https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
[2]Source for 2010: U.S. Census Bureau, 2010 Census. Retrieved from American Fact Finder, https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml
[3]U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates.
[4]Data for this geographic area cannot be displayed because the number of sample cases is too small.

Based on the data in Table 2, it appears that the southern census tract within the project area (tract no. 11) is home to larger populations of minorities and those below poverty level than Garden City, Ada County, or the state of Idaho as a whole. The northern census tract within the project area (tract no. 3.03) encompasses the Plantation Country Club, an 18-hole, approximately 100-acre private golf course, Silver Lake, and the surrounding Plantation neighborhood, where the median home value in 2018 was $326,500 (We Know Boise, 2019). Lower-income housing in census tract 3.03 is located along State Street, approximately 0.7 miles to the west of the project area.

If the project receives federal funding, it will have to comply with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and Title VI of the Civil Rights Act of 1964. The project would need to be evaluated for disproportionately high and adverse effects upon minority or low-income populations in the southern portion of the project area. This could include such considerations as whether or not project improvements would be barriers for residents accessing community services that primarily benefit minority or low-income populations through the Greenbelt. There are, however, no residences located within or adjacent to the southern side of the three relocation areas being considered. Therefore, it is very likely the project would have no negative effects related to environmental justice issues.

There are no park and ride lots in the project area, and the closest neighborhood transit services to the project area include ValleyRide bus route 11, known as Garden City, and ValleyRide bus route 9, known as State Street (ValleyRide, 2019). Bus route 11 travels along Alworth Street, which is located approximately 0.25 miles south of Plantation Island; bus route 9 travels along State Street, which is located

approximately 0.4 miles to the northeast of Plantation Island. It is not anticipated that these bus routes will be affected by the project. Thus, coordination with ValleyRide is not likely to be required.

Current Boise School District online busing information shows that the closest bus stops are located at the corner of N. Alworth Street and 52nd Street (to the south of the project area) and at the southern end of N. Gramarcy Lane (to the north of the project area). It is unlikely that these bus stops will be affected by the project. Thus, coordination with the school district is not likely to be required (Infofinderi, 2019).

The closest emergency medical centers are located more than four miles away from the project area. The closest urgent care facility, Primary Health Medical Group, is located over half a mile to the north of the project area. The closest fire station is located approximately 0.8 miles to the northwest of the project area. The closest police station, the Garden City Police Department, is located approximately 0.4 miles south of the project area. Thus, the project will not affect neighborhood access to emergency services.

10.0 HAZARDOUS MATERIALS

WCE Inc. conducted a review of applicable regulatory agency documents and lists of known or potentially hazardous waste sites or landfills and properties or facilities currently under investigation for potential environmental violations to identify operations located within the general vicinity of the project. WCE Inc. obtained a custom regulatory database search report from Environmental Record Search (ERS) of Laguna Hills, California. Using Plantation Island in Garden City for the centralized location (target property), the database specifically generated the listings for recorded sites located within one mile of the target property. A full listing of agency databases can be found in the attached ERS RecCheck Database Report (Appendix B).

For the purpose of this environmental scan, the facilities listed by the ERS report as being located upgradient or adjacent to the target property and that may potentially be of concern are discussed below. No active or historic groundwater wells were located within one-sixteenth of the target property, so local groundwater elevations could not be determined. Thus, based on a review of the topographic map, the direction of localized groundwater flow at the target property is presumed to be toward the northwest. Therefore, the sites that are of the greatest potential concern are those that have had releases or spills of hazardous substances or petroleum products and are southeast (upgradient) or in close proximity to the target property.

10.1 Target Property

The target property was not identified in any of the databases searched by ERS.

10.2 Surrounding Sites

Five sites within a one-mile radius of the target property are listed on the databases searched by ERS; however, only two of the sites are located adjacent to or upgradient of the target property.

The first site is a gravel pit located approximately 0.11 miles to the southwest of the target property (no address is provided) and is listed in the U.S. Geological Survey Mineral Resource Data System (MRDS) as a past producer of sand and gravel and in the Idaho Department of Environmental Quality's (IDEQ) Potential Contaminant Inventory as a U.S. Geological Survey mine location. Because no violations or reports of releases or spills of hazardous materials or petroleum products were found, this gravel pit is not considered an environmental concern to the target property.

The second site, Concrete Placing Co. Inc., is located approximately 0.15 miles southwest of the target property at 609 East 52nd Street in Garden City and is listed in eight databases searched by ERS, including the IDEQ's Underground Storage Tanks—Closed Cases and the U.S. Environmental Protection Agency's (EPA) Resource Conservation and Recovery Act (RCRA), Non-Hazardous Generators Databases. On March 25, 1994, a leak was reported from one of this site's four underground storage tanks (USTs). The

site was cleaned up on August 12, 1994, and subsequently closed. Two of the four USTs were closed (removed) in 1994; the remaining two were closed (removed) in 1997. Because the leaking underground storage tank was cleaned up, all four tanks were removed, and no violations or other reports of releases or spills of hazardous materials or petroleum products were found, Concrete Placing Co. Inc. is not considered an environmental concern to the target property.
The remaining three sites are located cross-gradient and to the south of the target property. Two of these sites, Environmental Management Solutions Inc. GC2 and Intermountain Precious Metals, are listed as inactive RCRA facilities. The last site, Mariposa Labs, is listed only as an active Very Small Quantity Generator (VSQG).

No other sites were identified in the databases searched by ERS.

11.0 CONCLUSIONS

The following findings were made as a result of this environmental scan:

- General Land Use
    - Plantation Island exists as undeveloped land except for the Boise River Greenbelt, which runs along its northwestern side. Areas forested with cottonwood and willows are mainly located along the southern edge of the island; the center of the island has been cleared. The Boise River Greenbelt and residential areas are located on the north and south banks of the river across from the island.

- Cultural Resources
    - No structures identified in the assessor's records as being more than 45 years old were located in the project area, but the horse stables at Les Bois Park, located across the Boise River and directly to the northwest of the proposed project area, were constructed in the 1970s and may be eligible for inclusion in the NRHP.
    - No sites within the project area are listed on the NRHP.

- Section 4(f) Properties
    - The Greenbelt started out as a recreational pathway but has since grown into an integral part of the valley's multimodal transportation system. Whether or not Section 4(f) applies, the purpose of the proposed project is to maintain the continuity of this pathway. No other potential Section 4(f) properties in the form of parks, recreational areas, wildlife refuges, or historic properties are located in the project area.

- Biological Resources
    - One federally listed endangered species, the yellow-billed cuckoo, may occur in the project area; however, the proposed project area is not located in the proposed critical habitat for this species.
    - Eight migratory bird species may occur in the project area; nesting and breeding habitat for these birds may be disturbed as a result of project construction.
    - There are no USFWS refuge lands or fish hatcheries within the project area.

- Water Resources
    - The Boise River flows around Plantation Island, and wetlands are likely located along the southern side of the island and the southern bank of the south channel of the river.

- Noise

    - Garden City code 8 states that noise detectable by the human senses without the aid of instruments shall be mitigated through setbacks, buffers, sound attenuation, and/or hours of operation. The Greenbelt and its river crossings close at sunset and will not require mitigation.
- Environmental Justice and Neighborhood Services
    - Minority and low-income populations were identified to the south of the project area.
    - No ValleyRide or school bus stops are located in the project area.
    - No emergency services, including fire, police, and hospitals, are located in the project area.

- Hazardous Materials
    - No hazardous materials sites were located in the proposed project area, and neither of the two hazardous materials sites identified as being adjacent to or upgradient of the proposed project area are considered to be environmental concerns to the proposed project area.

12.0 REFERENCES

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APPENDIX A

IPaC OFFICIAL SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Idaho Fish And Wildlife Office
1387 South Vinnell Way, Suite 368
Boise, ID 83709-1657
Phone: (208) 378-5243 Fax: (208) 378-5262

In Reply Refer To: April 12, 2019
Consultation Code: 01EIFW00-2019-SLI-0986
Event Code: 01EIFW00-2019-E-02081
Project Name: COMPASS Plantation Island Bridge/Path Replacement

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (https://ww.fws.gov/migratorybirds/pdf/management/eagleconservtionplanguidance.pdf). Additionally, wind energy projects should follow the wind energy guidelines (https://www.fws.gov/ecologica-servces/energy-develpment/wind/html) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: https://www.fws.ov/bidsbird-enthusiasts/threats-to-birds/collisions/communication-towers.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Idaho Fish And Wildlife Office
1387 South Vinnell Way, Suite 368
Boise, ID 83709-1657
(208) 378-5243

Project Summary

Consultation Code: 01EIFW00-2019-SLI-0986

Event Code: 01EIFW00-2019-E-02081

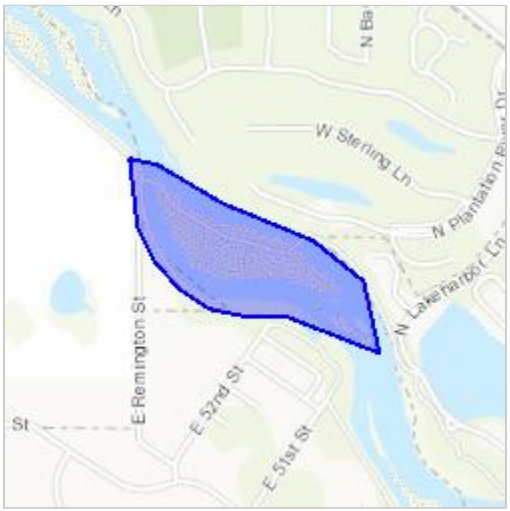
Project Name: COMPASS Plantation Island Bridge/Path Replacement

Project Type: RECREATION CONSTRUCTION / MAINTENANCE

Project Description: To identify, design, and construct a bicycle and pedestrian bridge over the south channel of the Boise River.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.651637774301335N116.26567832589524W



Counties: Ada, ID

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. 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.

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Flowering Plants

NAME	STATUS
Slickspot Peppergrass *Lepidium papilliferum* There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4027	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31

NAME	BREEDING SEASON
Golden Eagle *Aquila chrysaetos* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker *Melanerpes lewis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-billed Curlew *Numenius americanus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Willow Flycatcher *Empidonax traillii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/3482	Breeds May 20 to Aug 31

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:

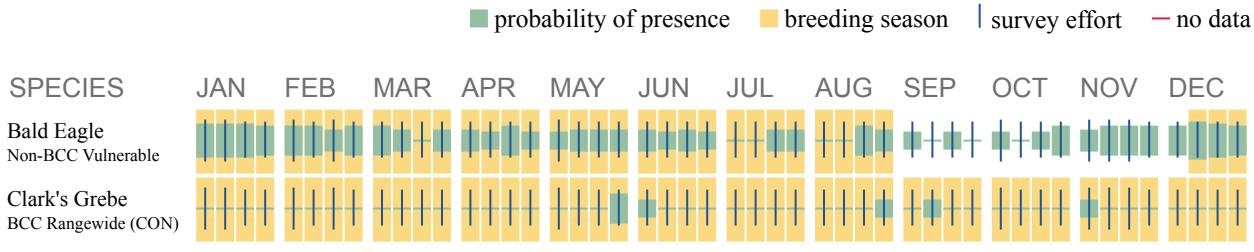
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability 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.

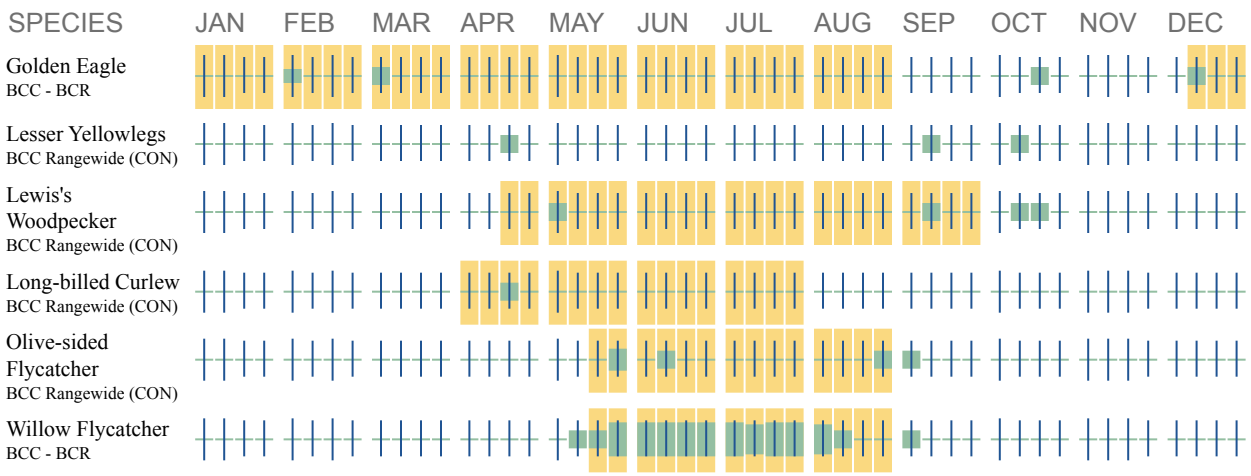
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

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.





Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

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 and/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 migratory birds potentially occurring 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 E-bird Explore Data 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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.

Wetlands

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.

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1A
- PFO1A
- PFO1C

RIVERINE

- R5UBFx
- R3UBH
- R5UBH
- R3USC

APPENDIX B

REGULATORY DATABASE SEARCH REPORT

ENVIRONMENTAL RECORD SEARCH

"The Intelligent Choice"

RecCheck

Report Results

The Standard for ASTM/AAI Radius Searches

(One Mile Environmental Records Search, Exceeds ASTM 1527/1528 and EPA All Appropriate Inquiry)

REPORT RESULTS

Site Location:

N Plantation River Dr
Garden City, ID 83714
(N 43-39-6, W 116-15-58) NAD83

TABLE OF CONTENTS

EXECUTIVE SUMMARY

INFORMATION ON THE REQUESTED LOCATION

Site Address:	N Plantation River Dr Garden City, ID 83714
Client Project Name/Number:	Plantation Island 2104704593
Coordinates:	N 43-39-6, W 116-15-58 (NAD 83) 43.651662, -116.266174
Date of Report	March 21, 2019
ERS Project Number:	2104704593
Subject Site Listed on the following lists:	Not Listed
Subject Site Listed as Map ID#:	N/A
USGS 7.5 Minute Quad Map:	Eagle (2017-04-19)
Subject Site Located within a Potential Area of Concern:	No
Township, Section and Range:	Electronic TRS is unavailable
Site Elevation: (feet above or below (-) mean sea level)	2625
Flood Zone: (FEMA Q3 Digital Data)	Panel: 16001C0169H, Effective Date: 2/19/2003 Zone AE - Zone AE: The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
Fire Insurance Map Coverage:	There may be coverage of your site.
Radon Information:	EPA Radon Zone: 2 (Predicted avg for county: 2 to 4 pCi/L)
Search Radius Expansion Size: (In Miles)	0
Soil Type: (USDA Soil Survey Geographic Database) (SSURGO)	Notus-LesBois complex, 0 to 1 percent slopes Map Unit Type: Complex Hydric: Yes Drainage Class: Very poorly drained General Information: Sandy-skeletal, mixed, mesic Mollic Endoaquents

Zip Codes Searched for "Un-Mappable" Sites:	Not Researched
Occurrence Count:	14

SUMMARY OF OCCURRENCES

MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
1 Maps: 1, 2, 4	10144332 Gravel Pit	Not Reported by Agency	MRDS-US	Listed	0.11 SW	0
1 Maps: 1, 2, 4	13177 Gravel Pit	Not listed Garden City	PCI-ID	Listed	0.11 SW	0
2 Maps: 1, 2, 4	6198 CONCRETE PLACING CO INC	609 E 52ND ST GARDEN CITY	AllFac-ID	Listed	0.15 SE	3
2 Maps: 1, 2, 4	8037011 CONCRETE PLACING CO, INC	609 E 52ND BOISE	Hist-RCRIS-US	Listed	0.15 SE	3
2 Maps: 1, 2, 4	5388107 CONCRETE PLACING CO INC	609 E 52ND ST BOISE	Hist-UST-ID	Listed	0.15 SE	3
2 Maps: 1, 2, 4	303 CONCRETE PLACING CO INC	609 E 52ND ST BOISE	LUST-Closed-ID	Site Cleanup Completed	0.15 SE	3
2 Maps: 1, 2, 4	20931 CONCRETE PLACING CO INC	609 E 52ND ST GARDEN CITY	PCI-ID	Listed	0.15 SE	3
2 Maps: 1, 2, 4	50161 WR CONCRETE PLACING CO INC	609 E 52ND ST GARDEN CITY	PCI-ID	Listed	0.15 SE	3
2 Maps: 1, 2, 4	IDR000002865 CONCRETE PLACING CO INC	609 E 52ND ST GARDEN CITY	RCRA-NON-US	Listed	0.15 SE	3
2 Maps: 1, 2, 4	3-010136 CONCRETE PLACING CO INC	609 E 52ND ST BOISE	UST-ID	Closed	0.15 SE	3
3 Maps: 1, 4	3399 ENVIRONMENTAL MGT SOLUTIONS INC GC1	5111 ALWORTH UNIT B GARDEN CITY	AllFac-ID	Listed	0.35 S	6
3 Maps: 1, 4	3398 ENVIRONMENTAL MGT SOLUTIONS INC GC2	5111 ALWORTH UNIT G GARDEN CITY	AllFac-ID	Listed	0.35 S	6

MAP ID	ID/SITE NAME	ADDRESS	DATABASE	STATUS	DISTANCE (MILES)	ELEV DIFF (FEET)
4 Maps: 1, 4	3944 INTERMOUNTAIN PRECIOUS METALS	5140 SAWYER GARDEN CITY	AllFac-ID	Listed	0.41 S	8
5 Maps: 1, 4	4297 MARIPOSA LABS	270 E 50TH ST GARDEN CITY	AllFac-ID	Listed	0.47 S	8

POTENTIAL AREAS OF CONCERN/CONTAMINATION SUMMARY

DATABASE SEARCHED	SUBJECT SITE WITHIN POTENTIAL AREA OF CONCERN	AREAS FOUND WITHIN 1-MILE RADIUS
NPL-R10-US	No	0
Military-Bases-US	No	0
NPA-ID	No	0
Phosphate-Mines-ID	No	0
Landfill-Areas-ID	No	0

DATABASE OCCURRENCE SUMMARY

HIGH RISK* OCCURRENCES IDENTIFIED IN REQUESTED SEARCH RADIUS		
DATABASE SEARCHED	DISTANCE SEARCHED (MILES)	HIGH RISK OCCURRENCES FOUND
CERCLIS-US	0.5	0
LUST-Open-ID	0.5	0
NPL-US	1	0
Proposed-NPL-US	1	0
SAA-Agreements-US	1	0
Tribal-LUST-Open-Reg10	0.5	0

* For the purposes of this report, “high risk” occurrences are those that have known contamination and have not received a “case closed” or “no further action” status from the agency that maintains the records.

ASTM/AAI STANDARD RECORD SOURCES SUMMARY				
STANDARD ENVIRONMENTAL RECORD SOURCES	ASTM MIN. SEARCH DIST. / ERS SEARCH DIST. (MILES)	ERS DATABASE NAME	TOTAL LISTINGS	MAP ID #’S
Federal NPL site list	1.0 / 1.0	NPL-US	0	None Listed
		Proposed-NPL-US	0	None Listed
Federal Delisted NPL site list	0.5 / 1.0	Delisted-NPL-US	0	None Listed
Federal CERCLIS list	0.5 / 0.5	CERCLIS-US	0	None Listed
Federal CERCLIS NFRAP site list	0.5 / 0.5	CERCLIS-Archived-US	0	None Listed
Federal RCRA CORRACTS facilities list	1.0 / 1.0	RCRA-COR-US	0	None Listed
Federal RCRA non-CORRACTS TSD facilities list	0.5 / 0.5	RCRA-TSDF-US	0	None Listed
Federal RCRA generators list	Property and adjoining properties / 0.25	RCRA-CESQG-US	0	None Listed
		RCRA-LQG-US	0	None Listed
		RCRA-NON-US	1	2

		RCRA-SQG-US	0	None Listed
Federal Inst/Eng control registries	Property Only / 0.25	Controls-RCRA-US	0	None Listed
		Controls-US	0	None Listed
		Hist-US-EC	0	None Listed
		Hist-US-IC	0	None Listed
		LIENS-US	0	None Listed
Federal ERNS list	Property Only / 0.0625	ERNS-US	0	None Listed
State and Tribal-Equivalent NPL	1.0 / 1.0	Not Reported by Agency	0	None Listed
State and Tribal-Equivalent CERCLIS	0.5 / 0.5	Not Reported by Agency	0	None Listed
State and Tribal landfill and/or solid waste disposal sites	0.5 / 0.5	Debris-US	0	None Listed
		Hist-Dumps-US	0	None Listed
		SWF-ID	0	None Listed
		SWLF-US	0	None Listed
		Tribal-ODI-US	0	None Listed
State and Tribal Leaking Storage Tank Lists	0.5 / 0.5	LUST-Closed-ID	1	2
		LUST-Open-ID	0	None Listed
		Tribal-LUST-Closed-Reg10	0	None Listed
		Tribal-LUST-ID	0	None Listed
		Tribal-LUST-Open-Reg10	0	None Listed
State and Tribal Registered Storage Tank Lists	Property and adjoining properties / 0.25	FEMA-UST-US	0	None Listed
		Tribal-AST-ID	0	None Listed
		Tribal-UST-ID	0	None Listed
		Tribal-UST-Reg10	0	None Listed
		UST-ID	1	2
State and Tribal Inst/Eng Control Registries	Property Only / 0.5	Ctrls-ID	0	None Listed
		EC-LUST-ID	0	None Listed
State and Tribal Voluntary Cleanup Sites	0.5 / 0.5	Tribal-VCP-US	0	None Listed
		VCP-ID	0	None Listed
State and Tribal Brownfield Sites	0.5 / 0.5	BF-ID	0	None Listed
		BF-Tribal-US	0	None Listed

FEDERAL ASTM/AAI DATABASES							
DATABASE SEARCHED	**DISTANCE SEARCHED**	**SUBJECT SITE**	**0.125 MILES**	**0.25 MILES**	**0.5 MILES**	**1.0 MILES**	**TOTAL**
BF-Tribal-US	0.5	0	0	0	0	-	0
BF-US	0.5	0	0	0	0	-	0
CERCLIS-Archived-US	0.5	0	0	0	0	-	0

FEDERAL ASTM/AAI DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
CERCLIS-US	0.5	0	0	0	0	-	0
Controls-RCRA-US	0.5	0	0	0	0	-	0
Controls-US	0.5	0	0	0	0	-	0
Debris-US	0.5	0	0	0	0	-	0
Delisted-NPL-US	1	0	0	0	0	0	0
ERNS-US	0.0625	0	0	-	-	-	0
FEMA-UST-US	0.25	0	0	0	-	-	0
FTTS-ENF-US	0.25	0	0	0	-	-	0
Hist-Dumps-US	0.5	0	0	0	0	-	0
Hist-US-EC	0.5	0	0	0	0	-	0
Hist-US-IC	0.5	0	0	0	0	-	0
HMIS-US	0.0625	0	0	-	-	-	0
LIENS-US	0.0625	0	0	-	-	-	0
NPL-US	1	0	0	0	0	0	0
PADS-US	0.0625	0	0	-	-	-	0
PCB-US	0.25	0	0	0	-	-	0
Proposed-NPL-US	1	0	0	0	0	0	0
RCRA-CESQG-US	0.25	0	0	0	-	-	0
RCRA-COR-US	1	0	0	0	0	0	0
RCRA-LQG-US	0.25	0	0	0	-	-	0
RCRA-NON-US	0.25	0	1	0	-	-	1
RCRA-SQG-US	0.25	0	0	0	-	-	0
RCRA-TSDF-US	0.5	0	0	0	0	-	0
SAA-Agreements-US	1	0	0	0	0	0	0
SWLF-US	0.5	0	0	0	0	-	0
Tribal-LUST-Closed-Reg10	0.5	0	0	0	0	-	0
Tribal-LUST-Open-Reg10	0.5	0	0	0	0	-	0
Tribal-ODI-US	0.5	0	0	0	0	-	0
Tribal-UST-Reg10	0.25	0	0	0	-	-	0
Tribal-VCP-US	0.5	0	0	0	0	-	0

STATE ASTM/AAI DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
AllFac-ID	0.5	0	1	0	4	-	5
BF-ID	0.5	0	0	0	0	-	0
Ctrls-ID	0.5	0	0	0	0	-	0
EC-LUST-ID	0.5	0	0	0	0	-	0
LUST-Closed-ID	0.5	0	1	0	0	-	1
LUST-Open-ID	0.5	0	0	0	0	-	0
Manifest2-RI	0.0625	0	0	-	-	-	0
Spills-ID	0.0625	0	0	-	-	-	0
SWF-ID	0.5	0	0	0	0	-	0
Tribal-AST-ID	0.25	0	0	0	-	-	0
Tribal-LUST-ID	0.5	0	0	0	0	-	0
Tribal-UST-ID	0.25	0	0	0	-	-	0
UST-ID	0.25	0	1	0	-	-	1
VCP-ID	0.5	0	0	0	0	-	0
WTIRE-ID	0.5	0	0	0	0	-	0

SUPPLEMENTAL DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
Air-ID	0.25	0	0	0	-	-	0
BioFuel-US	0.25	0	0	0	-	-	0
CDL-ID	0.0625	0	0	-	-	-	0
CDL-US	0.0625	0	0	-	-	-	0
Cleaners-ID	0.25	0	0	0	-	-	0
Coal-Ash-Dams-US	0.5	0	0	0	0	-	0
Dams2-ID	0.25	0	0	0	-	-	0
Dams-ID	0.25	0	0	0	-	-	0
DCF-ID	0.25	0	0	0	-	-	0
EGRID-US	0.5	0	0	0	0	-	0
EPA-Watch-List-US	0.25	0	0	0	-	-	0
FA-HW-ID	0.0625	0	0	-	-	-	0
FA-HW-US	0.0625	0	0	-	-	-	0
FA-SWF-ID	0.0625	0	0	-	-	-	0
FA-UST-ID	0.0625	0	0	-	-	-	0
FRS-US	0.0625	0	0	-	-	-	0
FTTS-INSP-US	0.0625	0	0	-	-	-	0
FUDS-US	1	0	0	0	0	0	0
FUSRAP-US	0.25	0	0	0	-	-	0
Hist-AFS2-US	0.25	0	0	0	-	-	0
Hist-AFS-US	0.25	0	0	0	-	-	0
Hist-CERCLIS-NFRAP-US	0.25	0	0	0	-	-	0
Hist-CERCLIS-US	0.25	0	0	0	-	-	0
Hist-ERNS-US	0.0625	0	0	-	-	-	0
Hist-FIFRA-US	0.25	0	0	0	-	-	0
Hist-FINDS-US	0.0625	0	0	-	-	-	0
Hist-ID	0.0625	0	0	-	-	-	0
Hist-LUST-ID	0.25	0	0	0	-	-	0
HIST-MLTS-US	0.25	0	0	0	-	-	0
Hist-NPL-US	0.25	0	0	0	-	-	0
Hist-OGW-ID	0.0625	0	0	-	-	-	0
Hist-RCRIS-US	0.25	0	1	0	-	-	1
Hist-SWLF-ID	0.25	0	0	0	-	-	0
Hist-TRIS-US	0.25	0	0	0	-	-	0
Hist-US	0.0625	0	0	-	-	-	0
Hist-UST-ID	0.25	0	1	0	-	-	1
Hist-WaterWells-US	0.0625	0	0	-	-	-	0
ICIS-Air-US	0.0625	0	0	-	-	-	0
ICIS-FEC-US	0.0625	0	0	-	-	-	0
ICIS-NPDES-US	0.0625	0	0	-	-	-	0
Lead-Smelter-2-US	0.25	0	0	0	-	-	0
Lead-US	0.25	0	0	0	-	-	0
LMOP-US	0.5	0	0	0	0	-	0
MINES-US	0.0625	0	0	-	-	-	0
MLTS-US	0.0625	0	0	-	-	-	0
MRDS-US	0.25	0	1	0	-	-	1
PCI-ID	0.25	0	3	0	-	-	3
PCS-ID	0.5	0	0	0	0	-	0
PCS-US	0.25	0	0	0	-	-	0
RADINFO-US	0.0625	0	0	-	-	-	0
RFG-Lab-US	0.25	0	0	0	-	-	0
RMP-US	0.0625	0	0	-	-	-	0
ROD-US	0.5	0	0	0	0	-	0
SDWIS-US	0.25	0	0	0	-	-	0
SSTS-US	0.0625	0	0	-	-	-	0
Tribal-Air-US	0.25	0	0	0	-	-	0
TRIS2000-US	0.0625	0	0	-	-	-	0

SUPPLEMENTAL DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
TRIS2010-US	0.0625	0	0	-	-	-	0
TRIS80-US	0.0625	0	0	-	-	-	0
TRIS90-US	0.0625	0	0	-	-	-	0
TSCA-US	0.0625	0	0	-	-	-	0
UIC-ID	0.0625	0	0	-	-	-	0
UMTRA-US	0.0625	0	0	-	-	-	0
USGS-Waterwells-US	0.0625	0	0	-	-	-	0
Vapor-Intrusions-US	0.5	0	0	0	0	-	0
Wells-ID	0.0625	0	0	-	-	-	0
WLMW-ID	0.25	0	0	0	-	-	0

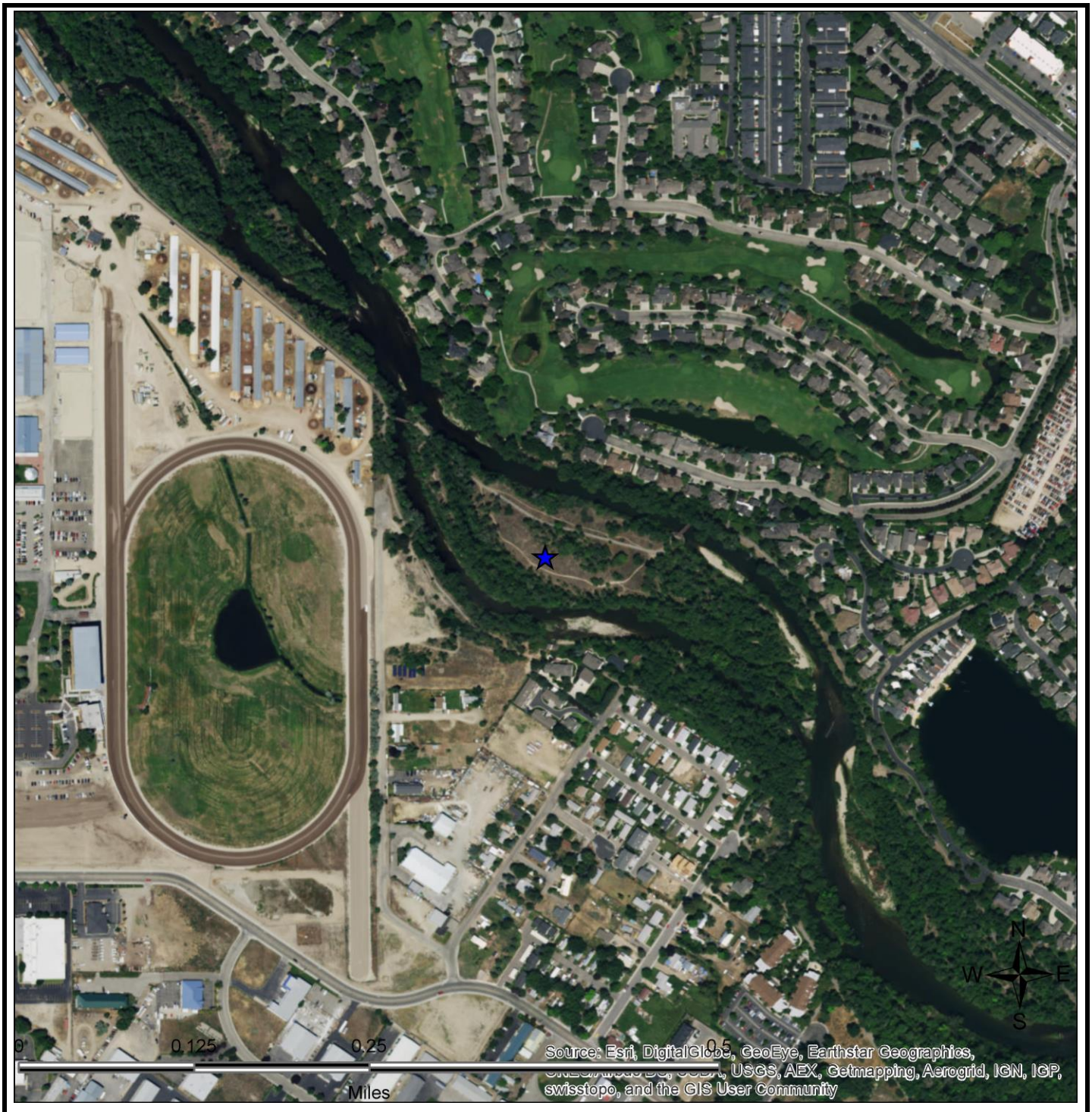
PROPRIETARY HISTORIC DATABASES

DATABASE SEARCHED	DISTANCE SEARCHED	SUBJECT SITE	0.125 MILES	0.25 MILES	0.5 MILES	1.0 MILES	TOTAL
Hist-Agriculture	0.0625	0	0	-	-	-	0
Hist-Auto Dealers	0.0625	0	0	-	-	-	0
Hist-Auto Repair	0.25	0	0	0	-	-	0
Hist-Chemical Manufacturing	0.0625	0	0	-	-	-	0
Hist-Chemical-Storage	0.0625	0	0	-	-	-	0
Hist-Cleaners	0.25	0	0	0	-	-	0
Hist-Convenience	0.0625	0	0	-	-	-	0
Hist-Disposal-Recycle	0.0625	0	0	-	-	-	0
Hist-Food-Processors	0.0625	0	0	-	-	-	0
Hist-Gun-Ranges	0.0625	0	0	-	-	-	0
Hist-Machine Shop	0.0625	0	0	-	-	-	0
Hist-Manufacturing	0.0625	0	0	-	-	-	0
Hist-Metal Plating	0.0625	0	0	-	-	-	0
Hist-Mining	0.0625	0	0	-	-	-	0
Hist-Mortuaries	0.0625	0	0	-	-	-	0
Hist-Oil-Gas	0.0625	0	0	-	-	-	0
Hist-OilGas-Refiners	0.0625	0	0	-	-	-	0
Hist-Other	0.0625	0	0	-	-	-	0
Hist-Paint-Stores	0.0625	0	0	-	-	-	0
Hist-Petroleum	0.0625	0	0	-	-	-	0
Hist-Post-Offices	0.0625	0	0	-	-	-	0
Hist-Printers	0.0625	0	0	-	-	-	0
Hist-Rental	0.0625	0	0	-	-	-	0
Hist-RV-Dealers	0.0625	0	0	-	-	-	0
Hist-Salvage	0.0625	0	0	-	-	-	0
Hist-Service Stations	0.25	0	0	0	-	-	0
Hist-Steel-Metals	0.0625	0	0	-	-	-	0
Hist-Textile	0.0625	0	0	-	-	-	0
Hist-Transportation	0.0625	0	0	-	-	-	0
Hist-Trucking	0.0625	0	0	-	-	-	0
Hist-Vehicle-Parts	0.0625	0	0	-	-	-	0
Hist-Vehicle-Washing	0.0625	0	0	-	-	-	0

SITE LOCATION TOPOGRAPHIC MAP

U.S. Geological Survey. Eagle (2017-04-19) Quadrangle, 7.5 Minute Series

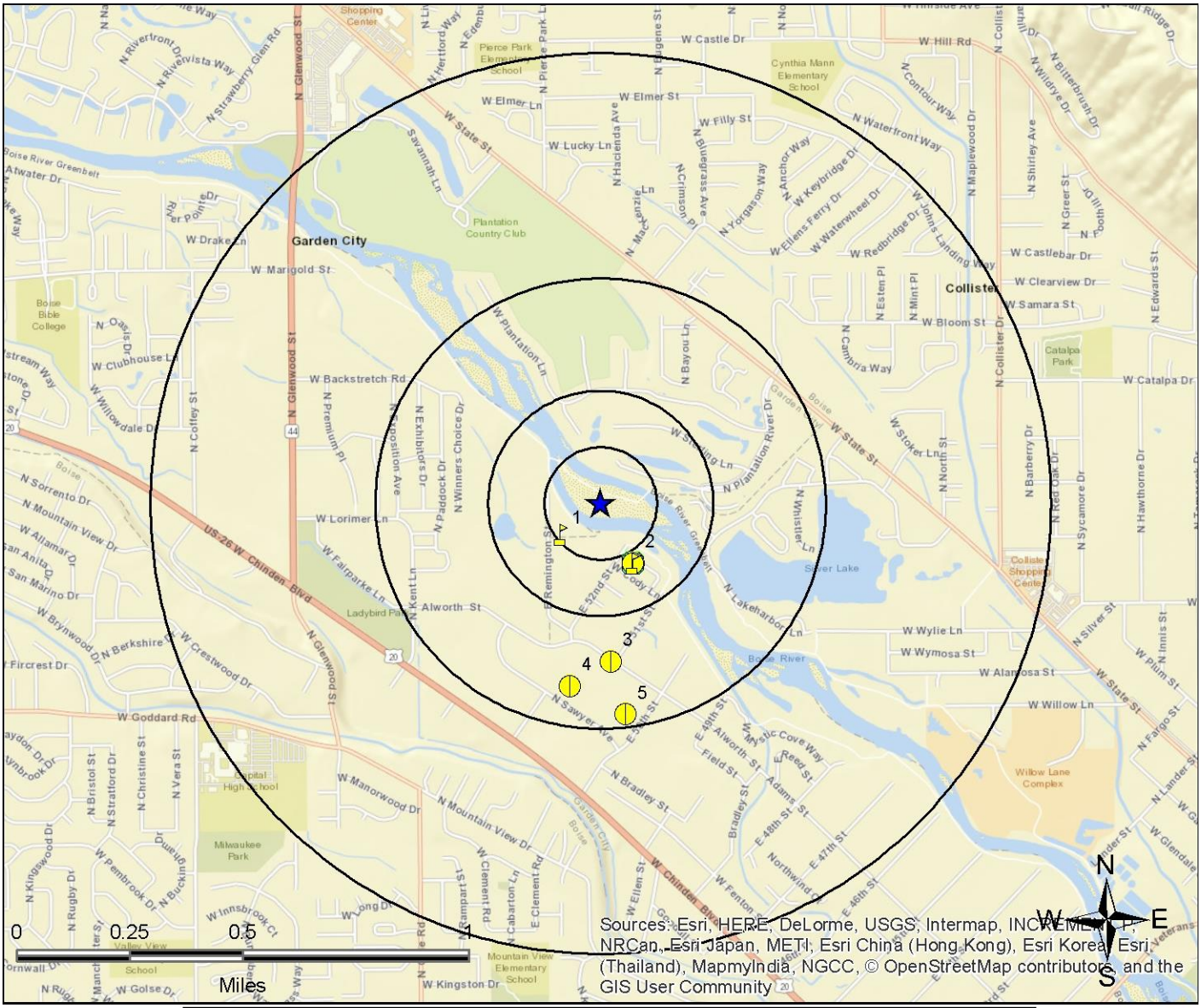
	N Plantation River Dr Garden City, ID 83714	FIGURE: 1 JOB: 2104704593 DATE: 3/21/2019



SITE LOCATION MAP

	N Plantation River Dr Garden City, ID 83714	FIGURE: 2 JOB: 2104704593 DATE: 3/21/2019

1-MILE RADIUS STREET MAP W/OCCURRENCES (MAP1)

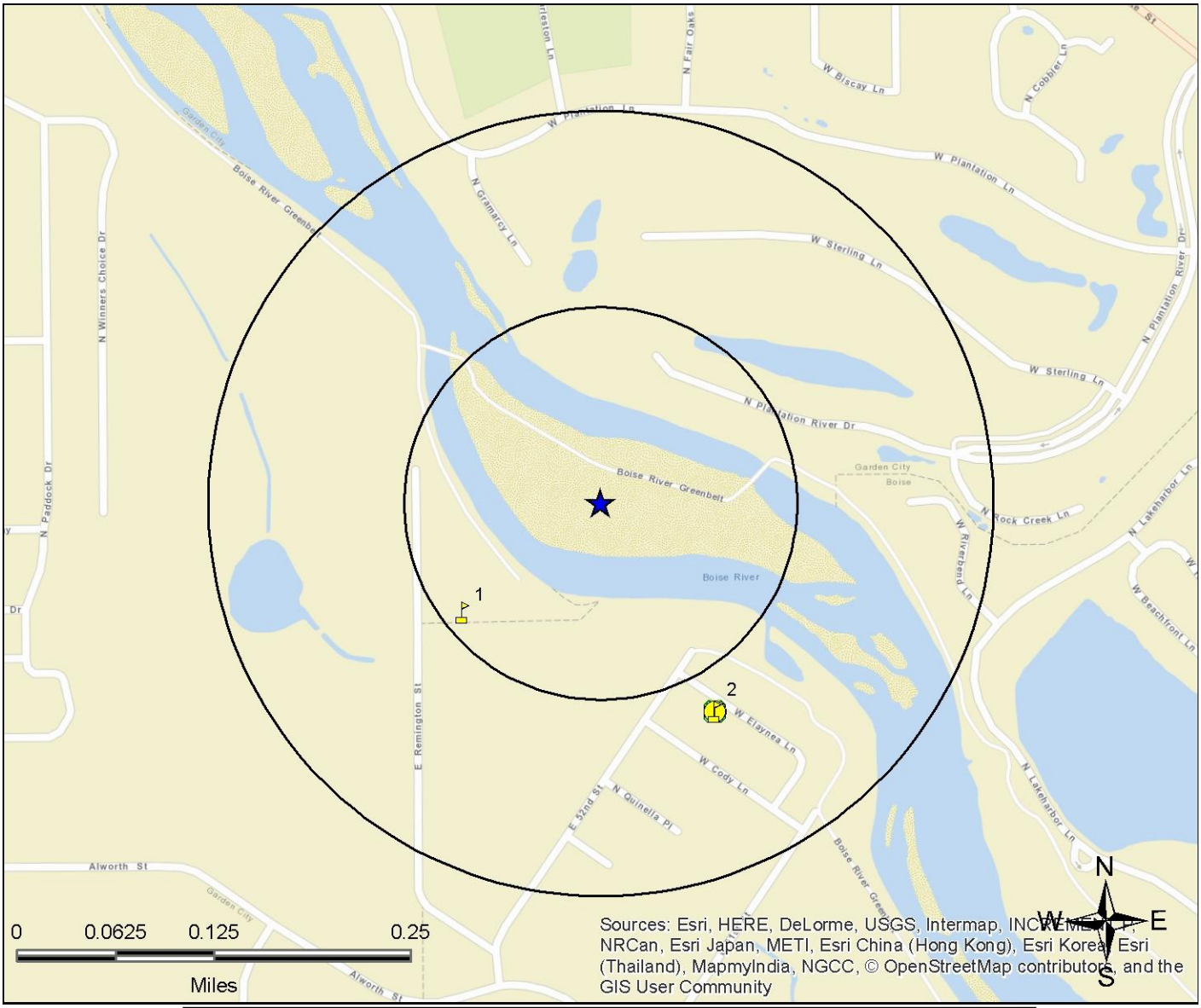


Legend

- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
- State/Tribal UST
- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

0.25-MILE RADIUS STREET MAP W/OCCURRENCES (MAP2)

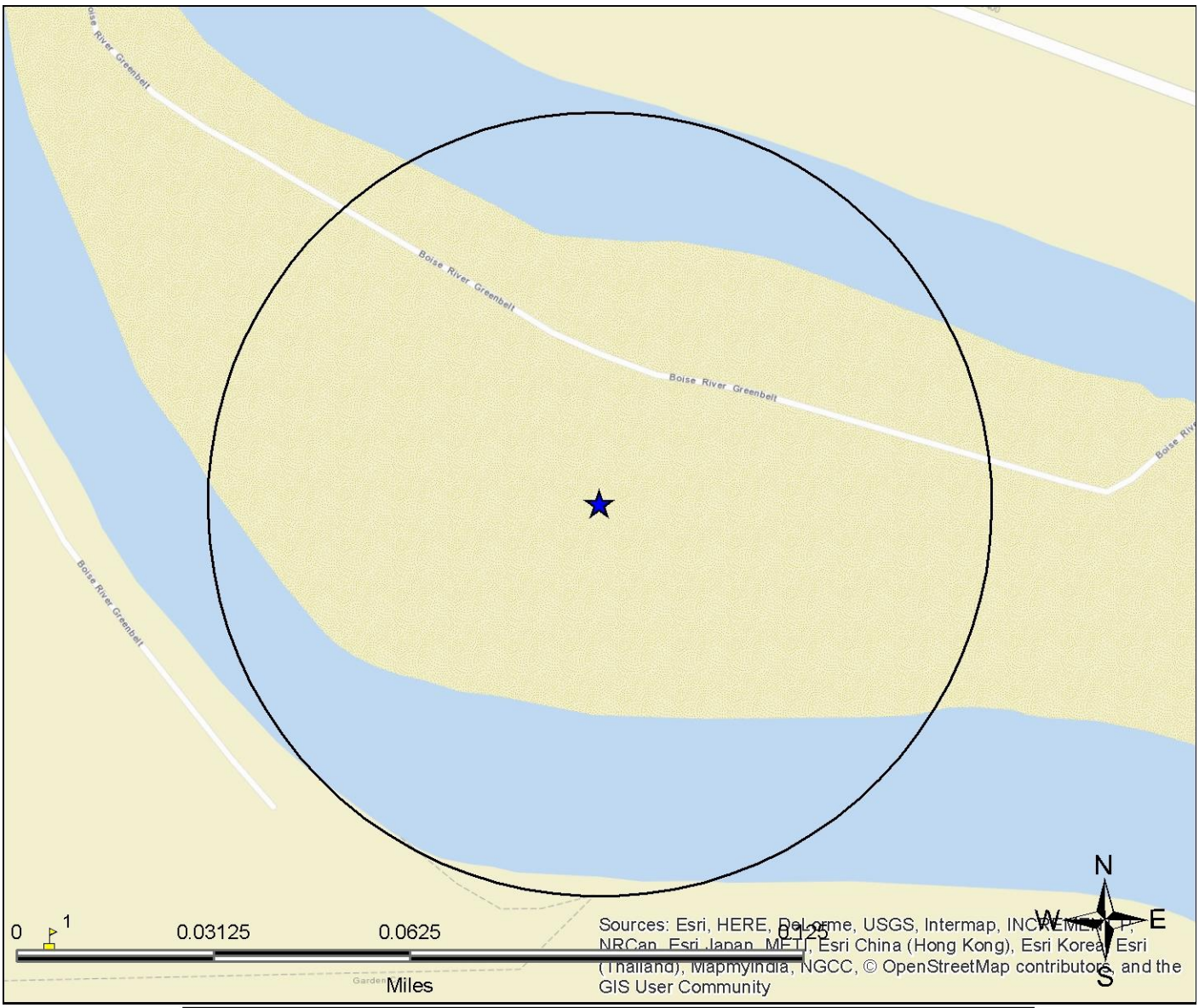


Legend

- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
- State/Tribal UST
- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

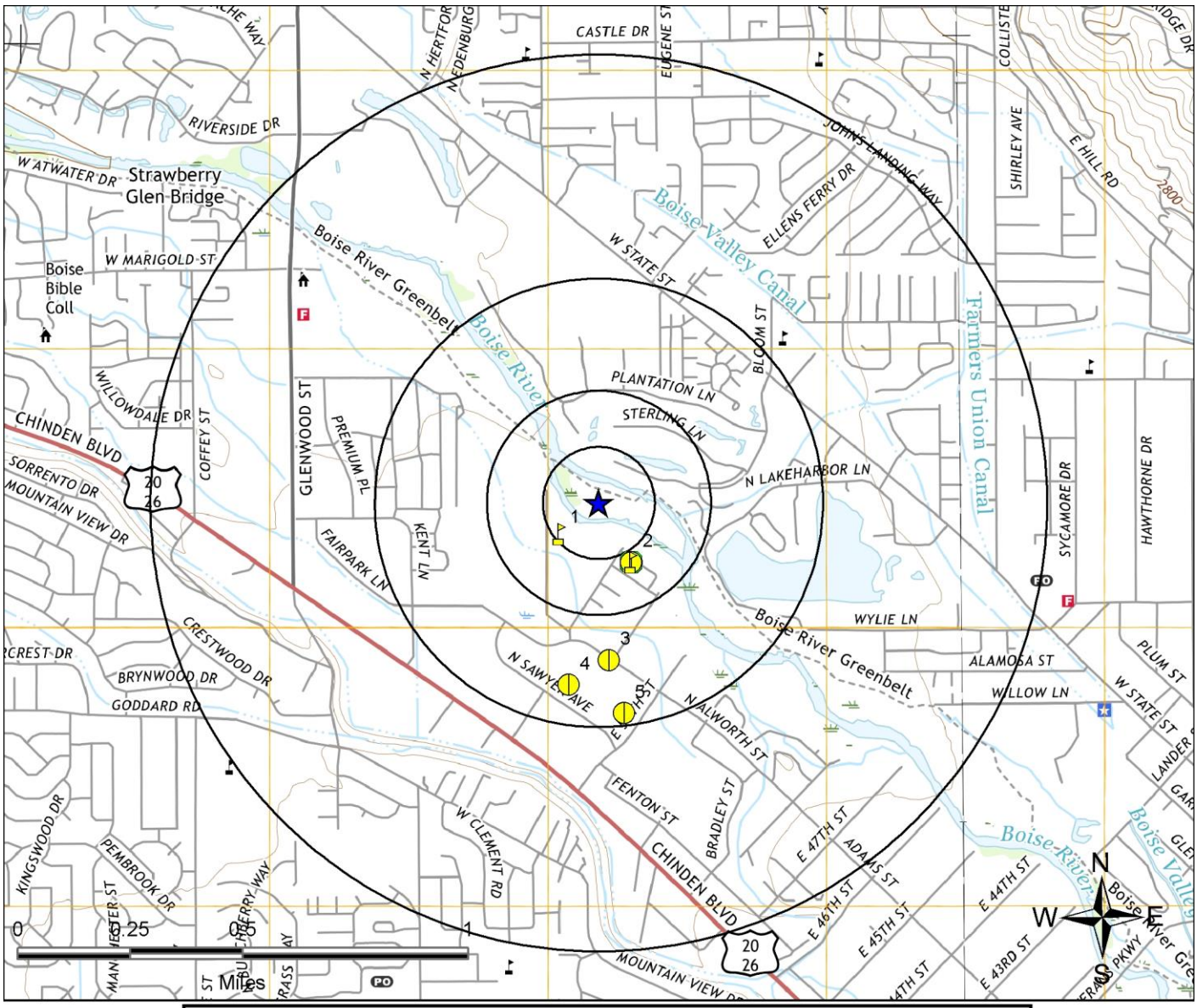
All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

0.0625-MILE RADIUS STREET MAP W/ OCCURRENCES (MAP3)



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

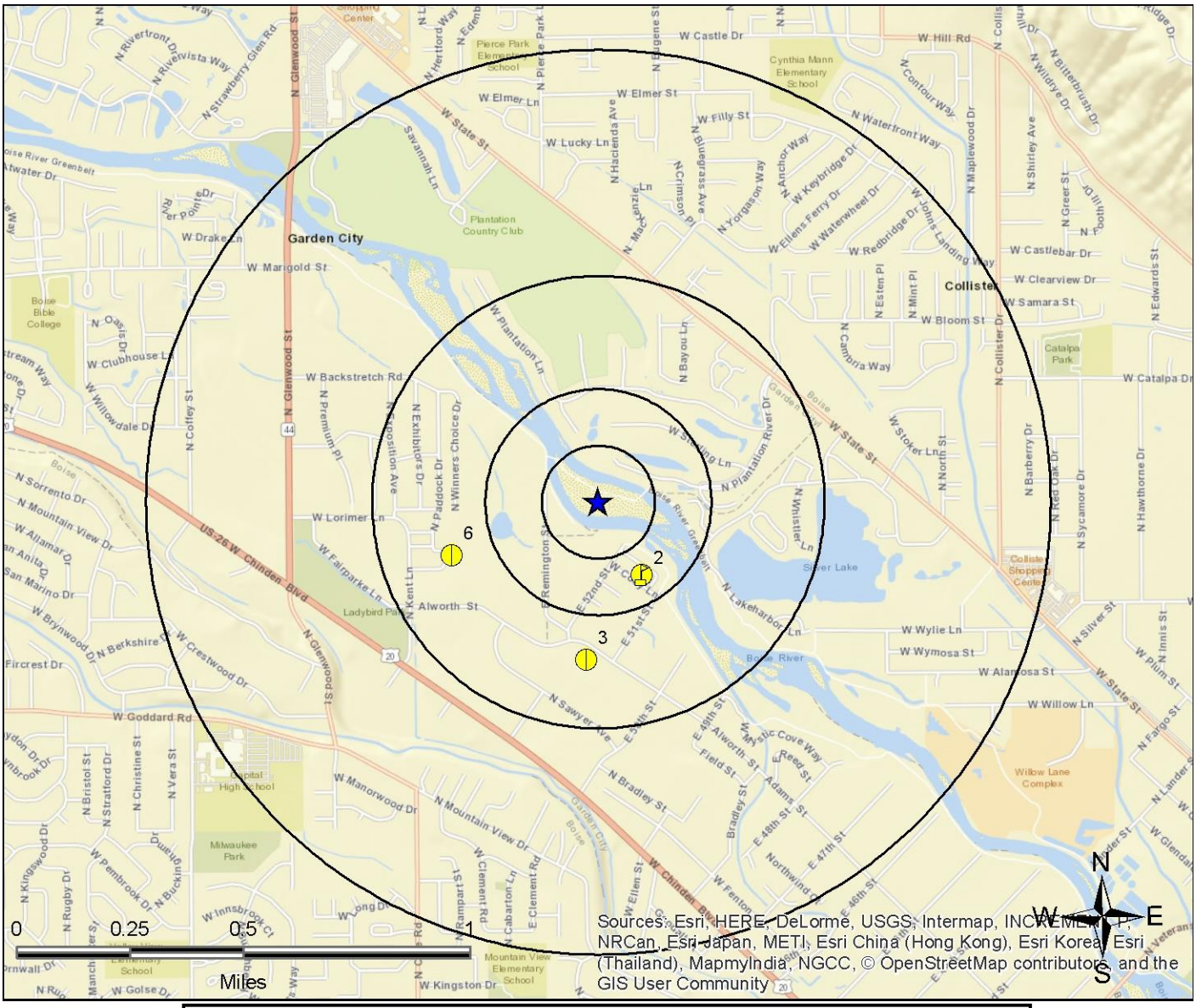
1-MILE TOPOGRAPHIC MAP W/OCCURRENCES (MAP4)



All plotted occurrences represent approximate locations based on geographic information provided by the respective agency. Actual locations may vary due to numerous reasons such as: the size of the property, accuracy of the provided location, accuracy of the software used to determine the location, etc. **Occurrences are shown in three colors** to give a visual indication of the potential risk of the listed occurrence based on the type of list and the current status of the occurrence. Occurrences shown in **RED** are locations with known contamination that have not received a "case closed" or "no further action" status. Occurrences shown in **YELLOW** have been listed by the respective agency, but do not always represent an environmental risk. The detailed status information and description of the listing should be reviewed for further information. Occurrences shown in **GREEN** are occurrences that have active permits or have had contamination in the past but have received a "case closed" or "no further action" status and therefore, do not likely present an environmental risk.

AGENCY DIFFERENCES IN MAPPED LOCATIONS (MAP5)

Note: Occurrences on this map have agency provided coordinates which differ significantly from geocoded locations.



Legend

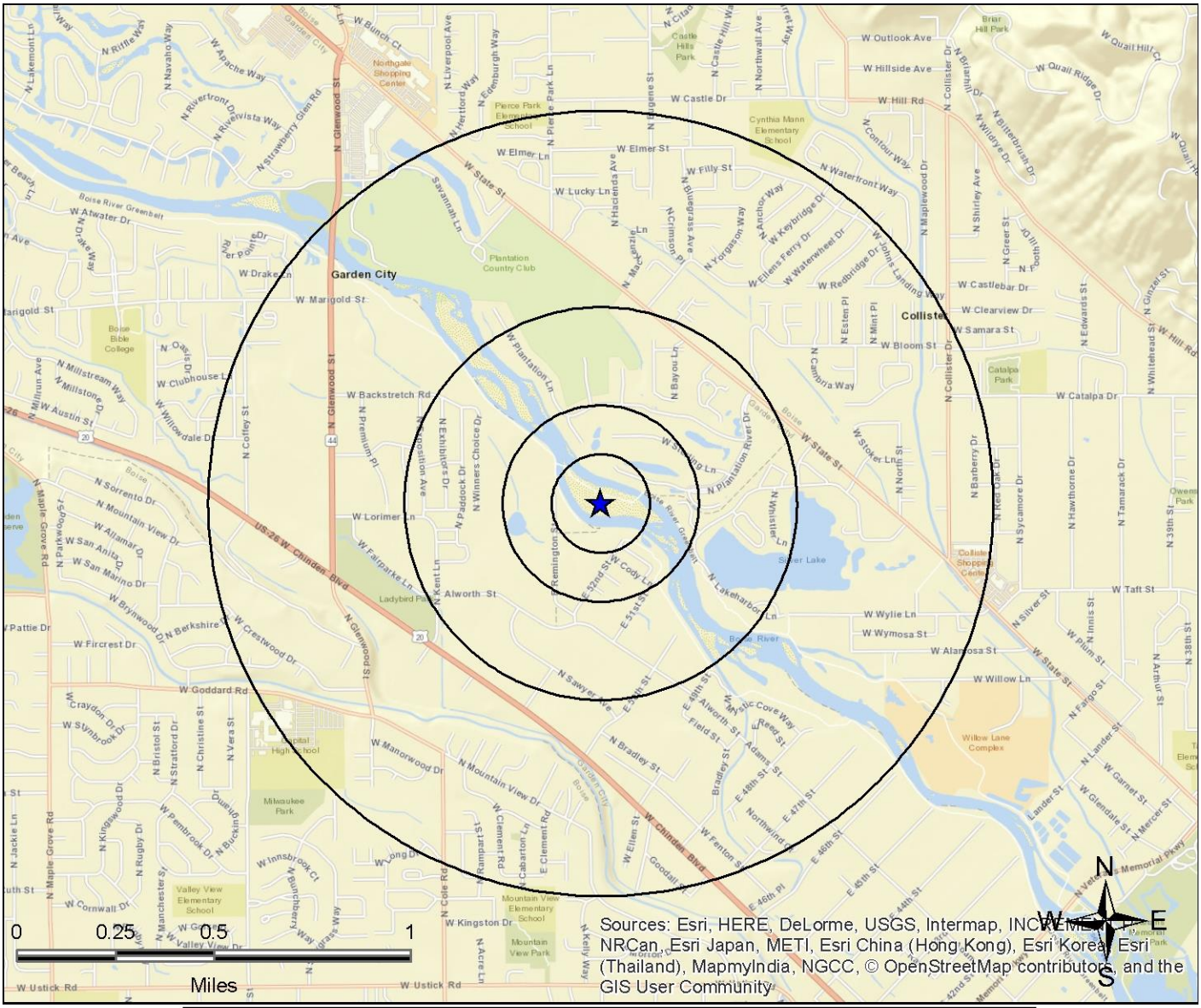
- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
- State/Tribal UST
- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

SUMMARY OF AGENCY DIFFERENCES

MAP ID	ID / SITE NAME	ADDRESS / DATABASE	AGENCY COORDINATES	DISTANCE (MILES)	DIRECTION
2	6198 CONCRETE PLACING CO INC	609 E 52ND ST AllFac-ID	-116.2642, 43.64933	0.19	SE
2	20931 CONCRETE PLACING CO INC	609 E 52ND ST PCI-ID	-116.2642, 43.64933	0.19	SE
2	50161 WR CONCRETE PLACING CO INC	609 E 52ND ST PCI-ID	-116.2642, 43.64933	0.19	SE
3	3399 ENVIRONMENTAL MGT SOLUTIONS INC GC1	5111 ALWORTH UNIT B AllFac-ID	-116.26667, 43.64663	0.35	S
3	3398 ENVIRONMENTAL MGT SOLUTIONS INC GC2	5111 ALWORTH UNIT G AllFac-ID	-116.26667, 43.64663	0.35	S
6	5852 WESTERN IDAHO FAIRGROUNDS	5610 GLENWOOD AllFac-ID	-116.27259, 43.65001	0.34	W

MAPPED AIR PERMITS WITH POTENTIAL DISPERSION (MAP6)

Note: Occurrences on this map are reported in Air Quality databases. Potential air plumes are drawn in the direction of the prevailing wind.
No air quality occurrences were identified in the search radius



Legend

- Federal NPL
- Federal Delisted NPL
- Federal CERCLIS
- Federal CERCLIS NFRAP
- Federal LUST
- Federal RCRA CORRACTS
- Federal RCRA non-CORRACTS TSD
- Federal RCRA Generators
- Federal UST
- Federal Inst/Eng Controls
- Federal Brownfield
- Federal ERNS
- Federal Emergency Release Reports
- Emergency Release Reports
- State/Tribal NPL
- State/Tribal CERCLIS Equivalent
- State/Tribal LUST
- State/Tribal Voluntary Cleanup Sites
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- State/Tribal Brownfield
- State/Tribal Inst/Eng Controls
- State/Tribal Landfill/Solid Waste
- State/Tribal RCRA Equivalent
- State/Tribal ASTM Other
- ERS Supplemental Govt Sources
- ERS Exclusive Historic Sources

LISTED OCCURRENCE DETAILS

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
MRDS-US	Listed	0.11 miles SW	2625 ft (0 ft higher than site)	1

SITE NAME	MAPS	ID
Gravel Pit	1, 2, 4	10144332

ADDRESS	CITY	ZIP
Not Reported by Agency		

DETAILS

Mineral Resource Data Systems (MRDS)
Mineral Resources On-Line Spatial Data:
http://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10144332
Deposit ID: 10144332
Code List: SDG
Development Status: Past Producer

Ages Information
: Not Reported
Analytical Data Information
: Not Reported
Comment(s) Information
: Not Reported
Commodity Information
Commodity Code: SDG
Commodity Name: Sand and Gravel, Construction
Commodity Type: Non-metallic
Commodity Group: Sand and Gravel

Concentration Processes Information
: Not Reported
Deposit Information
MAS ID: 0160010032
MRDS ID: Not Reported
Record Type: Site
More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
PCI-ID	Listed	0.11 miles SW	2625 ft (0 ft higher than site)	1
SITE NAME			**MAPS**	**ID**
Gravel Pit			1, 2, 4	13177
ADDRESS			**CITY**	**ZIP**
Not listed			Garden City	83714

DETAILS

URL Link:
http://tin.er.usgs.gov/mrds/show-mrds.php?dep_id=10144332
Object ID: 13177
Facility ID: 10144332
Facility Type: USGS Mine Locations
Contamination: Site Specific
County: Ada
Source: USGS
X-Coordinate: -12942880.0841
Y-Coordinate: 5411542.2907
Agency Provided Latitude: 43.6506800004
Agency Provided Longitude: -116.26787

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AllFac-ID	Listed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO INC			1, 2, 4	6198
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			GARDEN CITY	83714

DETAILS
Sites Detail URL: https://lw2.terradex.com/reporting/build_lur_array_for_site_v2/view/pg_siteid/6198 Reference ID: 6198 Box Number: 2011BAZ1487 County: Ada Covenant: Not Reported Program: Multiple Programs All Programs for Site: Leaking Underground Storage Tanks, RCRA Hazardous Waste Site, Underground Storage Tanks Agency Provided Latitude: 43.649334 Agency Provided Longitude: -116.264204 Site Programs Detail (From 2013) Container Title: WR CONCRETE PLACING CO INC Program ID: 3-010136 Original Name: WR REM UST Facility ID Program Status: Not Reported Program ID: 303 Original Name: WR REM LUST ID Program Status: Closed Program ID: IDR000002865 Original Name: WR RCRA Handler ID Program Status: Not Reported More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-RCRIS-US	Listed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO, INC			1, 2, 4	8037011
ADDRESS			**CITY**	**ZIP**
609 E 52ND			BOISE	83714
DETAILS				
Reported Date: 1998				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
Hist-UST-ID	Listed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO INC			1, 2, 4	5388107
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			BOISE	
DETAILS				
Reported Date: 1998				

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
LUST-Closed-ID	Site Cleanup Completed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO INC			1, 2, 4	303
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			BOISE	83714
DETAILS				

URL:
http://www2.deq.idaho.gov/waste/ustlust/pages/Search.aspx
Start URL:
http://www2.deq.idaho.gov/waste/ustlust/pages/FacilityInfo.aspx?id=1257
Facility ID: 3-010136
LUST ID: 303
Address 2: T4N R2E S30
Release Date: 3/25/1994
Cleanup Date: 8/12/1994
Cleanup Method: Not Reported
Status: Site Cleanup Completed
Agency Provided Longitude: -116.26479
Agency Provided Latitude: 43.64993

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
PCI-ID	Listed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO INC			1, 2, 4	20931
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			GARDEN CITY	83714

DETAILS

URL Link:
http://www.deq.idaho.gov/waste/ustlust/
Object ID: 20931
Facility ID: 3-010136
Facility Type: UST Site
Contamination: VOC,SOC
County: Ada
Source: IDEQ
X-Coordinate: -12942471.9867
Y-Coordinate: 5411335.21159999
Agency Provided Latitude: 43.649334
Agency Provided Longitude: -116.264204

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
PCI-ID	Listed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
WR CONCRETE PLACING CO INC			1, 2, 4	50161
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			GARDEN CITY	83714

DETAILS
URL Link: http://oaspub.epa.gov/enviro/rcrainfoquery.get_report?pgm_sys_id=IDR000002865 Object ID: 50161 Facility ID: IDR000002865 Facility Type: RCRA Location Contamination: Site Specific County: Ada Source: IDEQ X-Coordinate: -12942470.5363 Y-Coordinate: 5411334.2958 Agency Provided Latitude: 43.649334 Agency Provided Longitude: -116.264204

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
RCRA-NON-US	Listed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO INC			1, 2, 4	IDR000002865
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			GARDEN CITY	83714

DETAILS
Additional details may be found online using the following link: http://oaspub.epa.gov/enviro/fii_query_dtl.disp_program_facility?pgm_sys_id_in=IDR000002865&pgm_sys_acrnm_in=RCRAINFO Source Type: Notification Generator Status Universe: N Generator Status: Non-Generator Active Site Indicator: ----- Owner Name: CONCRETE PLACING CO INC In Handler Universes: N In a Universe: N Short Term Generator: N Importer Activity: N Mixed Waste Generator: N Transporter Activity: N Transfer Facility: N Recycler Activity: N Onsite Burner Exemption: N Furnace Exemption: N Underground Injection Activity: N Receives Waste From Off-site: N Universal Waste: N Universal Waste Destination Facility: N Used Oil Universe: NNNNNNN Federal Universal Waste: N Active Site Federally Regulated TSDF: ------ Active Site Converter TSDF: ------ Active Site State Regulated TSDF: --------- More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
UST-ID	Closed	0.15 miles SE	2628 ft (3 ft higher than site)	2
SITE NAME			**MAPS**	**ID**
CONCRETE PLACING CO INC			1, 2, 4	3-010136
ADDRESS			**CITY**	**ZIP**
609 E 52ND ST			BOISE	83714

DETAILS
URL: http://www2.deq.idaho.gov/waste/ustlust/pages/FacilityInfo.aspx?id=1257 Facility ID: 3-010136 Status: Closed Number of Tanks: 4 Type: Not Listed Address 2: T4N R2E S30

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AllFac-ID	Listed	0.35 miles S	2631 ft (6 ft higher than site)	3
SITE NAME			**MAPS**	**ID**
ENVIRONMENTAL MGT SOLUTIONS INC GC1			1, 4	3399
ADDRESS			**CITY**	**ZIP**
5111 ALWORTH UNIT B			GARDEN CITY	83714

DETAILS
Sites Detail URL: https://lw2.terradex.com/reporting/build_lur_array_for_site_v2/view/pg_siteid/3399 Reference ID: 3399 Box Number: 2011BAZ2043 County: Ada Covenant: Not Reported Program: RCRA Hazardous Waste Site All Programs for Site: RCRA Hazardous Waste Site Agency Provided Latitude: 43.646629 Agency Provided Longitude: -116.266672 Site Programs Detail (From 2013) Container Title: WR ENVIRONMENTAL MGT SOLUTIONS INC GC1 Program ID: IDR000200568 Original Name: WR RCRA Handler ID Program Status: Not Reported Site Office Detail (From 2013) User ID: 10053 User Organization Name: Boise Regional Office Site Office ID: 189520 Site Office ID: 162671 More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AllFac-ID	Listed	0.35 miles S	2631 ft (6 ft higher than site)	**3**
SITE NAME			**MAPS**	**ID**
ENVIRONMENTAL MGT SOLUTIONS INC GC2			1, 4	3398
ADDRESS			**CITY**	**ZIP**
5111 ALWORTH UNIT G			GARDEN CITY	83714

DETAILS
Sites Detail URL: https://lw2.terradex.com/reporting/build_lur_array_for_site_v2/view/pg_siteid/3398 Reference ID: 3398 Box Number: 2011BAZ2042 County: Ada Covenant: Not Reported Program: RCRA Hazardous Waste Site All Programs for Site: RCRA Hazardous Waste Site Agency Provided Latitude: 43.646629 Agency Provided Longitude: -116.266672 Site Programs Detail (From 2013) Container Title: WR ENVIRONMENTAL MGT SOLUTIONS INC GC2 Program ID: IDR000003657 Original Name: WR RCRA Handler ID Program Status: Not Reported Site Office Detail (From 2013) User ID: 10053 User Organization Name: Boise Regional Office Site Office ID: 189519 Site Office ID: 162670 More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AllFac-ID	Listed	0.41 miles S	2633 ft (8 ft higher than site)	4
SITE NAME			**MAPS**	**ID**
INTERMOUNTAIN PRECIOUS METALS			1, 4	3944
ADDRESS			**CITY**	**ZIP**
5140 SAWYER			GARDEN CITY	83714

DETAILS
Sites Detail URL: https://lw2.terradex.com/reporting/build_lur_array_for_site_v2/view/pg_siteid/3944 Reference ID: 3944 Box Number: 2011BAZ3319 County: Ada Covenant: Not Reported Program: RCRA Hazardous Waste Site All Programs for Site: RCRA Hazardous Waste Site Agency Provided Latitude: 43.64582 Agency Provided Longitude: -116.267493 Site Programs Detail (From 2013) Container Title: WR INTERMOUNTAIN PRECIOUS METALS Program ID: IDSTATE00061 Original Name: WR RCRA Handler ID Program Status: Not Reported Site Office Detail (From 2013) User ID: 10053 User Organization Name: Boise Regional Office Site Office ID: 189698 Site Office ID: 162849 More Details Link

DATABASE	STATUS	DISTANCE	ELEVATION	MAP ID
AllFac-ID	Listed	0.47 miles S	2633 ft (8 ft higher than site)	5
SITE NAME			**MAPS**	**ID**
MARIPOSA LABS			1, 4	4297
ADDRESS			**CITY**	**ZIP**
270 E 50TH ST			GARDEN CITY	83714

DETAILS

Sites Detail
URL:
https://lw2.terradex.com/reporting/build_lur_array_for_site_v2/view/pg_siteid/4297
Reference ID: 4297
Box Number: 2011BAZ4199
County: Ada
Covenant: Not Reported
Program: RCRA Hazardous Waste Site
All Programs for Site: RCRA Hazardous Waste Site
Agency Provided Latitude: 43.644886
Agency Provided Longitude: -116.264866

Site Programs Detail (From 2013)
Container Title: WR MARIPOSA LABS
Program ID: IDR000202028
Original Name: WR RCRA Handler ID
Program Status: Not Reported

Site Office Detail (From 2013)
User ID: 10053
User Organization Name: Boise Regional Office
Site Office ID: 162939

Site Office ID: 189788

More Details Link

RECORDS SOURCES SEARCHED

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Air-ID	Issued Air Permits	ERS Supplemental Govt Sources	Click Here	None Found
AllFac-ID	Remediation Database (aka ALLSITES)	State/Tribal ASTM Other Med	Click Here	5
BF-ID	Brownfield Sites (aka Brownfield Site Inventory)	State/Tribal Brownfield	Click Here	None Found
BF-Tribal-US	Historical Tribal Brownfields	Federal Brownfield	Click Here	None Found
BF-US	Brownfields Sites	Federal Brownfields	Click Here	None Found
BioFuel-US	Bio Diesel Fuel	ERS Supplemental Govt Sources	Click Here	None Found
CDL-ID	Clandestine Drug Labs	ERS Supplemental Govt Sources	Click Here	None Found
CDL-US	National Clandestine Drug Lab Register	ERS Supplemental Govt Sources	Click Here	None Found
CERCLIS-Archived-US	CERCLIS sites that have been archived	Federal CERCLIS NFRAP	Click Here	None Found
CERCLIS-US	Comprehensive Environmental Response, Compensation, and Liability Information System	Federal CERCLIS	Click Here	None Found
Cleaners-ID	Cleaners	ERS Supplemental Govt Sources	Click Here	None Found
Coal-Ash-Dams-US	Coal Ash Contaminated Sites and Hazard Dams	ERS Supplemental Govt Sources	Click Here	None Found
Controls-RCRA-US	RCRA Institutional and Engineering Controls Summary (aka Federal RCRA with Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Controls-US	US CERCLA Sites with Controls (aka US IC/EC, Institutional/Engineering List Controls, Land Use Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Ctrls-ID	Sites with Institutional Controls Restricting Use (aka INST CONTROL)	State/Tribal Inst/Eng Controls	Click Here	None Found
Dams2-ID	Idaho Dams	ERS Supplemental Govt Sources	Click Here	None Found
Dams-ID	Historical Idaho Dams	ERS Supplemental Govt Sources	Click Here	None Found
DCF-ID	Dry Cleaning Facilities	ERS Supplemental Govt Sources	Click Here	None Found
Debris-US	Historical Debris Sites	Federal Solid Waste	Click Here	None Found

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Delisted-NPL-US	Delisted NPL Sites	Federal Delisted NPL	Click Here	None Found
EC-LUST-ID	LUST Sites with Environmental Covenants	State/Tribal Inst/Eng Controls	Click Here	None Found
EGRID-US	Emissions & Generation Resource Facilities	ERS Supplemental Govt Sources	Click Here	None Found
EPA-Watch-List-US	Historical EPA Watch List	ERS Supplemental Govt Sources	Click Here	None Found
ERNS-US	Emergency Response Notification System	Federal ERNS	Click Here	None Found
FA-HW-ID	Financial Assurance, Hazardous Waste	ERS Supplemental Govt Sources	Click Here	None Found
FA-HW-US	Financial Assurance, Hazardous Waste	ERS Supplemental Govt Sources	Click Here	None Found
FA-SWF-ID	Financial Assurance, Solid Waste Facilities	ERS Supplemental Govt Sources	Click Here	None Found
FA-UST-ID	Financial Assurance, Underground Storage Tanks	ERS Supplemental Govt Sources	Click Here	None Found
FEMA-UST-US	Historical FEMA Underground Storage Tanks	Federal UST	Click Here	None Found
FRS-US	Facility Registry Index (FINDS)	ERS Supplemental Govt Sources	Click Here	None Found
FTTS-ENF-US	Historical FIFRA/TSCA Tracking System (FTTS) Enforcement Actions	Federal ASTM Other	Click Here	None Found
FTTS-INSP-US	Historical FIFRA/TSCA Tracking System (FTTS) Inspections	ERS Supplemental Govt Sources	Click Here	None Found
FUDS-US	Formerly Used Defense Sites	ERS Supplemental Govt Sources	Click Here	None Found
FUSRAP-US	Formerly Utilized Sites Remedial Action Program Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-AFS2-US	Historical Air Facility System for Clean Air Act stationary sources	ERS Supplemental Govt Sources	Click Here	None Found
Hist-AFS-US	Historical Air Facility System for Clean Air Act stationary sources	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Agriculture	Historical Ranches/Farms, Livestock/Agriculture	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Auto Dealers	Historical Auto and Truck Dealers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Auto Repair	Historical Automotive Repair	ERS Exclusive Historic Sources	Click Here	None Found
Hist-CERCLIS-NFRAP-US	Historical CERCLIS-NFRAP	ERS Supplemental Govt Sources	Click Here	None Found

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-CERCLIS-US	Historical CERCLIS Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Chemical Manufacturing	Historical Manufacturing and Distribution of Chemicals, Gases, and/or Solids	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Chemical-Storage	Historical Chemical/Hazardous Use Storage	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Cleaners	Historical Laundry, Cleaners, and Dry Cleaning Services	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Convenience	Historical Convenience Store with Possible Gas	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Disposal-Recycle	Historical Hazardous Disposal/Recycle and Dumps/Waste	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Dumps-US	Historical Dumps Inventory of 1985	Federal Solid Waste	Click Here	None Found
Hist-ERNS-US	Historical Emergency Response Notification System (ERNS)	ERS Supplemental Govt Sources	Click Here	None Found
Hist-FIFRA-US	Historical Case Administration Data from National Compliance Database (Federal Insecticide, Fungicide, and Rodenticide Act)	ERS Supplemental Govt Sources	Click Here	None Found
Hist-FINDS-US	Historical Facility Index System	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Food-Processors	Historical Food Processing Manufacturers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Gun-Ranges	Historical Gun Ranges/Clubs	ERS Exclusive Historic Sources	Click Here	None Found
Hist-ID	Previously Listed Idaho Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-LUST-ID	Historical Leaking UST Tracking Form	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Machine Shop	Historical Machine Shops, Welding, Machine Repair	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Manufacturing	Historical Sources US: Manufacturing	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Metal Plating	Historical Metal Plating	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Mining	Historical Mining Operations	ERS Exclusive Historic Sources	Click Here	None Found
HIST-MLTS-US	Historical Material Licensing Tracking System	ERS Supplemental Govt Sources	Click Here	None Found

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-Mortuaries	Historical Crematories/Mortuaries	ERS Exclusive Historic Sources	Click Here	None Found
Hist-NPL-US	Historical National Priority List	ERS Supplemental Govt Sources	Click Here	None Found
Hist-OGW-ID	Historical Oil and Gas Wells	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Oil-Gas	Historical Oil and Gas Well Related Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-OilGas-Refiners	Historical Oil/Gas Refiners/Manufacturers/Plants	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Other	Historical Environmental Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Paint-Stores	Historical Paint Stores	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Petroleum	Historical Petroleum Refining/ Manufacturing/ Chemicals	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Post-Offices	Historical Post Offices	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Printers	Historical Printers and Publishers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-RCRIS-US	Historical EPA's Resource Conservation and Recovery Act	ERS Supplemental Govt Sources	Click Here	1
Hist-Rental	Historical Rental Equipment & Yards	ERS Exclusive Historic Sources	Click Here	None Found
Hist-RV-Dealers	Historical Trailer and Recreational Vehicle Dealers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Salvage	Historical Vehicle Salvage Yards or Wreckers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Service Stations	Historical Service Stations/Vehicle Fueling	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Steel-Metals	Historical Steel Mills/Manufacturers/Foundries/Smelters	ERS Exclusive Historic Sources	Click Here	None Found
Hist-SWLF-ID	Historical Solid Waste Landfill Capacity Inventory	ERS Supplemental Govt Sources	Click Here	None Found
Hist-Textile	Historical Textile Mills/Manufacturers	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Transportation	Historical Transportation Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-TRIS-US	Historical Toxic Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Hist-Trucking	Historical Trucking, Shipping, Delivery, and/or Storage	ERS Exclusive Historic Sources	Click Here	None Found
Hist-US	Historical Previously Listed Federal Sites	ERS Supplemental Govt Sources	Click Here	None Found
Hist-US-EC	Historical Engineering Controls Sites (aka US EC, Engineering Controls, Land Use Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Hist-US-IC	Historical Sites with Institutional Controls (aka US IC, Institutional Controls, Land Use Controls)	Federal Institutional/Engineering Controls	Click Here	None Found
Hist-UST-ID	Historical Underground Storage Tank Facility Listing	ERS Supplemental Govt Sources	Click Here	1
Hist-Vehicle-Parts	Historical Vehicle Parts	ERS Exclusive Historic Sources	Click Here	None Found
Hist-Vehicle-Washing	Historical Vehicle/Truck Washing Facilities	ERS Exclusive Historic Sources	Click Here	None Found
Hist-WaterWells-US	Historical Public Community Water Supply/Well Head Protection Database	ERS Supplemental Govt Sources	Click Here	None Found
HMIS-US	Hazardous Materials Information System	Federal Emergency Release Reports	Click Here	None Found
ICIS-Air-US	Integrated Compliance Information System for Air	ERS Supplemental Govt Sources	Click Here	None Found
ICIS-FEC-US	Integrated Compliance Information System for Federal Enforcement Data	ERS Supplemental Govt Sources	Click Here	None Found
ICIS-NPDES-US	National Pollutant Discharge Elimination System (NPDES)	ERS Supplemental Govt Sources	Click Here	None Found
Landfill-Areas-ID	Landfill Boundaries	State/Tribal Solid Waste	Click Here	None Found
Lead-Smelter-2-US	Historical Lead Smelter Sites	ERS Supplemental Govt Sources	Click Here	None Found
Lead-US	Lead Smelter Sites	ERS Supplemental Govt Sources	Click Here	None Found
LIENS-US	Superfund Liens	Federal Institutional/Engineering Controls	Click Here	None Found
LMOP-US	Landfill Methane Outreach Program	ERS Supplemental Govt Sources	Click Here	None Found
LUST-Closed-ID	Leaking Underground Storage Tanks, Closed Cases (aka LUST Events)	State/Tribal LUST	Click Here	1
LUST-Open-ID	Leaking Underground Storage Tanks, Open Cases (aka LUST Events)	State/Tribal LUST	Click Here	None Found

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
Manifest2-RI	Hazardous Waste Manifest	State/Tribal RCRA Equivalent	Click Here	None Found
Military-Bases-US	Military Base Boundaries	ERS Supplemental Govt Sources	Click Here	None Found
MINES-US	Mines Master Index File	ERS Supplemental Govt Sources	Click Here	None Found
MLTS-US	Material Licensing Tracking System	ERS Supplemental Govt Sources	Click Here	None Found
MRDS-US	Mineral Resources Data System (MRDS)	ERS Supplemental Govt Sources	Click Here	1
NPA-ID	Nitrate Priority Areas	ERS Supplemental Govt Sources	Click Here	None Found
NPL-R10-US	NPL Region 10 Site Boundaries	Federal NPL	Click Here	None Found
NPL-US	National Priorities List	Federal NPL	Click Here	None Found
PADS-US	PCB Registration Database System	Federal ASTM Other	Click Here	None Found
PCB-US	PCB Transformers	Federal ASTM Other	Click Here	None Found
PCI-ID	Potential Contaminant Inventory Locations	ERS Supplemental Govt Sources	Click Here	3
PCS-ID	Petroleum Contaminated Sites	ERS Supplemental Govt Sources	Click Here	None Found
PCS-US	Historical Permit Compliance System for Clean Water Act	ERS Supplemental Govt Sources	Click Here	None Found
Phosphate-Mines-ID	Phosphate Mine Areas	ERS Supplemental Govt Sources	Click Here	None Found
Proposed-NPL-US	Proposed NPL Sites	Federal NPL	Click Here	None Found
RADINFO-US	Radiation Information Database	ERS Supplemental Govt Sources	Click Here	None Found
RCRA-CESQG-US	Resource Conservation and Recovery Act, Conditionally Exempt Small Quantity Generators (aka RCRA CESQG)	Federal RCRA Generators	Click Here	None Found
RCRA-COR-US	Resource Conservation and Recovery Act, - Corrective Actions (aka RCRA CORRACTS)	Federal RCRA CORRACTS	Click Here	None Found
RCRA-LQG-US	Resource Conservation and Recovery Act, Large Quantity Generators (aka RCRA LQG)	Federal RCRA Generators	Click Here	None Found
RCRA-NON-US	Resource Conservation and Recovery Act, Non-Hazardous Generators (aka RCRA Non-Haz, RCRA NonGen, RCRA No longer Regulated)	Federal RCRA Generators	Click Here	1

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
RCRA-SQG-US	Resource Conservation and Recovery Act, Small Quantity Generators (aka RCRA SQG)	Federal RCRA Generators	Click Here	None Found
RCRA-TSDF-US	Resource Conservation and Recovery Act -, Treatment, Storage, and Disposal Facilities (aka RCRA TSD, RCRA TSDF)	Federal RCRA non-CORRACTS TSD	Click Here	None Found
RFG-Lab-US	Reformulated Gasoline (RFG)	ERS Supplemental Govt Sources	Click Here	None Found
RMP-US	Risk Management Plans	ERS Supplemental Govt Sources	Click Here	None Found
ROD-US	Records of Decision	ERS Supplemental Govt Sources	Click Here	None Found
SAA-Agreements-US	Sites with Superfund Alternative Approach Agreements	Federal ASTM Other	Click Here	None Found
SDWIS-US	Safe Drinking Water Information System	ERS Supplemental Govt Sources	Click Here	None Found
Spills-ID	Hazmat Reports (aka Spills, Idaho Hazmat Classification)	Emergency Release Reports	Click Here	None Found
SSTS-US	Section 7 Tracking System	ERS Supplemental Govt Sources	Click Here	None Found
SWF-ID	Solid Waste Facilities	State/Tribal Landfill/Solid Waste	Click Here	None Found
SWLF-US	Solid Waste Facilities	Federal Solid Waste	Click Here	None Found
Tribal-Air-US	Tribal Air Permitted Facilities	ERS Supplemental Govt Sources	Click Here	None Found
Tribal-AST-ID	Tribal Aboveground Storage Tanks	State/Tribal UST	Click Here	None Found
Tribal-LUST-Closed-Reg10	Tribal Leaking Underground Storage Tanks (aka Indian LUST)	Federal LUST	Click Here	None Found
Tribal-LUST-ID	Tribal Leaking Underground Storage Tanks	State/Tribal LUST	Click Here	None Found
Tribal-LUST-Open-Reg10	Tribal Leaking Underground Storage Tanks (aka Indian LUST)	Federal LUST	Click Here	None Found
Tribal-ODI-US	Tribal Open Dump Sites	Federal Solid Waste	Click Here	None Found
Tribal-UST-ID	Tribal Underground Storage Tanks	State/Tribal UST	Click Here	None Found
Tribal-UST-Reg10	Tribal Underground Storage Tanks (aka Indian UST)	Federal UST	Click Here	None Found
Tribal-VCP-US	Tribal VCP	Federal Tribal VCP	Click Here	None Found
TRIS2000-US	Historical Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found

ABREVIATION	DATABASE FULLNAME	DATABASE CATEGORY	DATABASE DETAILS LINK	TOTAL LISTINGS
TRIS2010-US	Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TRIS80-US	Historical Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TRIS90-US	Historical Toxics Release Inventory System	ERS Supplemental Govt Sources	Click Here	None Found
TSCA-US	Toxics Substance Control Sites	ERS Supplemental Govt Sources	Click Here	None Found
UIC-ID	Underground Injection Control Wells	ERS Supplemental Govt Sources	Click Here	None Found
UMTRA-US	Historical Uranium Mill Tailings Remedial Action Sites	ERS Supplemental Govt Sources	Click Here	None Found
USGS-Waterwells-US	Ground Water Site Inventory	ERS Supplemental Govt Sources	Click Here	None Found
UST-ID	Underground Storage Tanks (aka UST List)	State/Tribal UST	Click Here	1
Vapor-Intrusions-US	Vapor Intrusion Database	ERS Supplemental Govt Sources	Click Here	None Found
VCP-ID	Voluntary Cleanup Program Sites	State/Tribal Voluntary Cleanup Sites	Click Here	None Found
Wells-ID	Idaho Wells	ERS Supplemental Govt Sources	Click Here	None Found
WLMW-ID	Water Level Monitoring Wells	ERS Supplemental Govt Sources	Click Here	None Found
WTIRE-ID	Historical Waste Tire Collection Sites (aka SWTIRE)	State/Tribal ASTM Other Med	Click Here	None Found

UN-MAPPABLE OCCURRENCES

The following occurrences were not mapped primarily due to incomplete or inaccurate address information. All of the following occurrences were determined to share the same zip code as the area searched. General status information is given with each occurrence along with any address information entered by the agency responsible for the list.

ID	Facility Name	Address	Database	Status
No "un-mapped" sites requested.				

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Appendix B. Cost Summary and Forms

Project Cost Summary Sheet

ITD 1150 (Rev. 06-17)
itd.idaho.gov

Round Estimates to Nearest $1,000

Key Number	Project Number	Date
		7/19/2019

Location	District
Plantation Island South Channel Bridge	3

Segment Code	Begin Mile Post	End Mile Post	Length in Miles
NA	NA	NA	

	Previous ITD 1150	Initial or Revise To
1a. Preliminary Engineering (PE)		
1b. Preliminary Engineering by Consultant (PEC)		$62,000
2. Right-of-Way: Number of Parcels Number of Relocations		
3. Utility Adjustments: ☐ Work ☐ Materials ☐ By State ☐ By Others		
4. Earthwork		$18,000
5. Drainage and Minor Structures		
6. Pavement and Base		$11,000
7. Railroad Crossing:		
Grade/Separation Structure _____		
At-Grade Signals ☐ Yes ☐ No		
8. Bridges/Grade Separation Structures:		
☑ New Structure Length/Width 120'/14'		$436,000.00
Location _____		
☐ Repair/Widening/Rehabilitation Length/Width _____		
Location		
9. Traffic Items (Delineators, Signing, Channelization, Lighting, and Signals)		
10. Temporary Traffic Control (Sign, Pavement Markings, Flagging, and Traffic Separation)		$1,000
11. Detours		
12. Landscaping		$9,000
13. Mitigation Measures		
14. Other Items (Roadside Development, Guardrail, Fencing, Sidewalks, Curb and Gutter, C.S.S. Items)		$38,000
15. Cost of Constructions (Items 3 through 14)		$513,000
16. Mobilization 10 % of Item 15		$51,000
17. Construction Engineer and Contingencies 20 % of Items 15 and 16		$113,000
18. Total Construction Cost (15 + 16 + 17)		$677,000
19. Total Project Cost (1 + 2 + 18)		$739,000
20. Project Cost Per Mile		

Prepared By:

Don Vander Boegh, PE and Jay Witt, PE

Plantation Island Pedestrian Bridge

Cost Estimate for Preferred Alternate

Item No.	Item Description	Unit	Quantity	Unit Price	Amount
201-005A	Clearing & Grubbing	Acre	0.15	$45,000.00	$6,800
202-005A	Selective Removal of Trees	Each	12.00	$540.00	$6,500
203-015A	Removal of Bituminous Surface	SY	110.00	$12.00	$1,300
205-010A	Excavation Schedule No. 1	CY	340.00	$28.00	$9,500
205-045A	Granular Borrow	Ton	10.00	$28.00	$300
205-060A	Water for Dust Abatement	MG	20.00	$150.00	$3,000
212-020A	Silt Fence	Ft	500.00	$4.00	$2,000
212-060A	Stabilized Construction Entrance	Each	1.00	$1,600.00	$1,600
213-005A	Topsoil	CY	20.00	$120.00	$2,400
621-005A	Seed Bed Preparation	Acre	0.50	$4,000.00	$2,000
621-010A	Seeding	Acre	0.50	$2,800.00	$1,400
621-015A	Mulching	Acre	0.50	$1,800.00	$900
621-025A	Mulch Anchoring (Tackifier)	Acre	0.50	$850.00	$400
624-015A	Hand Placed Riprap	CY	170.00	$110.00	$18,700
626-010A	Rent Constr Sign Class B	SF	90.00	$8.00	$720
626-040A	Rent Constr Barricade Class B Type III	Each	2.00	$40.00	$80
640-010A	Riprap/Erosion Control Geotextile	SY	285.00	$7.00	$2,000
S105-05A	Directed Surveying (Two Person Crew)	Hr	40.00	$80.00	$3,200
S105-05B	Directed Surveying (Office Computations)	Hr	40.00	$80.00	$3,200
S105-10A	Survey	LS	1.00	$7,500.00	$7,500
S500-11A	Dewatering Foundation	LS	1.00	$35,000.00	$35,000
S501-17A	MSE Retaining Wall (Segmental Block)	SF	170.00	$50.00	$8,500
S501-17B	MSE Retaining Wall (Segmental Block for Bridge Abutments)	SF	472.00	$60.00	$28,300
S501-25A	SP Bridge (Pre-Engineered Metal Bridge)	LS	1.00	$312,000.00	$312,000
S501-25B	SP Bridge (Cast-in-Place Concrete Footing Pads)	LS	1.00	$22,000.00	$22,000
S637-10A	Aggregate Base for Shared-Use Path	Ton	60.00	$50.00	$3,000
S637-15A	Plantmix for Shared-Use Path	Ton	38.00	$210.00	$8,000
S900-50A	Contingency Amount (Water Pollution and Erosion Control)	CA	1.00	$5,000.00	$5,000
S901-05A	SP (Planting Shrubs and Trees)	Each	24.00	$75.00	$1,800
S904-05A	Contractor's Staging Area	LS	1.00	$15,000.00	$15,000
Z629-05A	Mobilization	LS	1.00	$51,000.00	$51,000
				TOTAL	**$563,100**

Earthwork	$17,900
Pavement and Base	$11,000
Bridge	$436,000
Temporary Traffic Control	$800
Landscaping	$8,900
Other Items	$37,500
Subtotal	**$512,100**