

APPENDIX E

Environmental Summary

ENVIRONMENTAL CRITICAL ISSUES ASSESSMENT

TRANSPORTATION CAPITAL PROJECT
PRIORITIZATION STUDY

PREPARED FOR:
City of Fort Collins, Colorado

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Olsson Project No. 021-01676



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1. EXECUTIVE SUMMARY

Olsson has completed an environmental critical issues assessment of multiple individual project sites included in the Transportation Capital Project Prioritization Study (TCPPS) within the City of Fort Collins, Colorado. These projects include developed roadways and associated rights-of-way (ROWs) with proposed future construction activities involving Road Diets, Intersection Improvements, Corridor Improvements, and New Locations for infrastructure in previously less- or undeveloped areas. Environmental critical issues assessment activities included desktop review for 14 project areas with field survey at select locations based on a risk review as described further in this report. The results of the environmental critical issues assessment described herein provide a risk screening for potential environmental resource impacts that may be further avoided and/or require additional site assessment and permitting prior to individual project construction.

A desktop review was conducted for each of the 14 projects considering water features (e.g., if potentially jurisdictional or non-jurisdictional as a Waters of the U.S. [WOTUS]), wildlife habitat, floodplain and water drainages, non-historical protected areas, and presence of historical structures. This information was then used to screen each of project areas in terms of potential environmental resource impacts, construction timeframe restrictions and/or other anticipated pre-construction permitting requirements.

Of the 14 project sites, seven were identified as having higher environmental resource impact and/or permitting requirement risks and a field survey for visual inspection was conducted in September 2022. Six of these seven sites were visually inspected for water features and wildlife habitat with the remaining one project area inaccessible due to ongoing construction activities (i.e., Suniga Road). Field observations were incorporated into the risk screening evaluation as presented in Appendix A with the following recommendations:

- Four of the seven projects with water features are anticipated to have jurisdictional water features, however impacts can be avoided through design and/or construction activities remaining within the individual project areas.
- Two project areas are anticipated to have jurisdictional and non-jurisdictional water features including potential impacts based on the current individual project areas. An administrative jurisdictional determination (JD) is recommended for submittal prior to completing project design. Additional field survey activities may be recommended depending on the length of time between the September 2022 field survey and initiation of construction activities (e.g., within approximately one year versus multiple years in the future).
- It is recommended that for the one remaining site that was inaccessible (i.e., Suniga Road), a visual field inspection be conducted when accessible to allow further assessment

of existing water features, potential WOTUS jurisdiction, and if potential impacts can be avoided through the design process, as well as potentially suitable habitat for species of concern.

Of the 14 project sites, three sites were screened as medium risk based on potential wildlife habitat. These projects were included in the desktop review with identified potential environmental impacts limited to past observed bird nests within or in the vicinity of the individual project areas. These sites were not included for visual inspection as field surveys for the identified species are recommended closer to design finalization and initiation of construction activities. Restrictive site activities based on wildlife habitat (e.g., active nests, etc.) are included in this report for the applicable project sites.

The four remaining sites of the 14 total projects are considered low risk from both a potential environmental resource impact and potential permitting requirements perspective. These projects were included in the desktop review and environmental resource impacts were identified not present within the individual project areas.

Appendix A, Table A. 1 includes summary tables of the 14 project areas sorted by risk category (e.g., high, medium, and low) with additional detailed information included in Table A.2. Desktop and field survey methods and results are discussed further in the following sections.

2. METHODS

Desktop Review: A desktop review of publicly available datasets was conducted to identify potential impacts to water features, and regulated wildlife species and habitats. The following publicly available resources were used to complete the desktop review:

- U.S. Geological Survey (USGS) Gap Analysis Project (GAP; USGS 2011)
- USGS Protected Areas Database of the United States (PAD-US) Version 3.0 (USGS 2022)
- USGS National Hydrography Dataset (NHD; USGS 2020)
- National Wetlands Inventory (NWI), Version 2 (U.S. Fish and Wildlife Service [USFWS] 2022a)
- USFWS Information Planning and Consultation (IPaC) tool-generated list of federal-listed species (USFWS 2022b)
- CPW Non-Disclosure Agreement (NDA) Nest Data (CPW 2022a)
- Colorado Parks and Wildlife (CPW) and Colorado Oil and Gas Conservation Commission (COGCC) SB 181 High Priority Habitat (HPH; CPW n.d. and COGCC 2019)
- City of Fort Collins Natural Areas 2022
- National Flood Hazard Layer (NFHL) Larimer County, Federal Emergency Management Agency (FEMA) Floodplain 2021 (FEMA 2021)

- Land Information Locator, Larimer County IT, Enterprise GIS (geographic information system; Larimer County n.d.)
- Fort Collins History Connection (Fort Collins History Connection 1977)

The collective project areas included within the City of Fort Collins was used to generate the IPaC Report included in Appendix B (USFWS 2022b). Olsson reviewed mapped raptor nests according to CPW NDA data to species potentially present across the project areas that are protected under the Migratory Bird Treaty Act (MBTA) and/or the Bald and Golden Eagle Protection Act (BGEPA). Additionally, while these projects are not regulated under the COGCC or related to oil and gas exploration or operation activities, data from COGCC's HPH has been included in this environmental critical issues assessment to support identification of trends and needs for current and future wildlife management. The COGCC dataset has been collaboratively developed with other agencies including CPW as habitat areas where measures to avoid, minimize, and mitigate adverse impacts to wildlife have been identified to protect breeding, nesting, foraging, migrating, or other uses by wildlife.

The environmental resource datasets were compiled in a geographic information system (GIS). Appendix C includes figures for projects with environmental resources identified within their respective project boundaries.

To evaluate presence of historical buildings within and/or adjacent to individual project area boundaries, Larimer County assessor data (e.g., 1999 to present) and historical maps (e.g., 1977) were used to review project area infrastructure over a 50-year period (Larimer County n.d., Fort Collins History Connection 1977).

Based on review of the above datasets, individual projects have been screened into three categories to summarize the environmental risk as follows:

- The Low-Risk category indicates that no environmental features were observed within the project impact area during the desktop review.
- The Medium-Risk category indicates that wildlife resources or a raptor nesting boundary was observed intersecting with the project impact area, but no wetlands or other water resources including potentially jurisdictional Waters of the United States (WOTUS) were observed within the project area during desktop review.
- The High-Risk category indicates that wetlands or other water resources including potentially jurisdictional WOTUS were identified within the project area and may include other observed environmental features within the project area. Field visits were conducted at project areas within this category where accessible (e.g., one project area was inaccessible due to ongoing construction activities).

The findings of the desktop review are discussed further in the sections below and are summarized in Appendix A.

Field Survey: Between September 20 and 30, 2022, qualified members of Olsson staff performed field inspection surveys at six of the seven project sites included in the High-Risk category (Appendix A), based on potential environmental resource impacts including presence of water features. The remaining project area was inaccessible due to ongoing construction activities (i.e., Suniga Road) and therefore, no field survey was able to be completed. Based on the desktop review, NWI data was used to highlight project areas in which a field investigation should be conducted in order to confirm the presence of wetland features appearing to intersect with the proposed individual project areas. Field survey activities included mapping wetland and riparian features based on their geomorphic position, hydrology, and vegetation using software capable of sub-meter accuracy, collecting observations on potential wildlife habitat at each project area.

Field study methods utilized for this report provide project area constraints for planning purposes and design considerations only and may require additional data collection and/or analysis prior to submittal for U.S. Army Corps of Engineers (USACE) or other regulatory review. Field survey activities may require additional wetland delineation as project boundaries and design layouts progress further. For water feature field survey data collection, water resources constraints were collected generally following guidance provided in the USACE Wetland Delineation Manual (Environmental Laboratory 1987) and the *Great Plains Region Supplement to the Wetland Delineation Manual* (USACE 2010).

Based on both the desktop review and field visual inspection, Olsson has provided a preliminary interpretation of jurisdictional status in accordance with the pre-2015 regulatory definition and practice. On November 18, 2021, the U.S. Environmental Protection Agency (EPA) and USACE announced the signing of a proposed rule to revise the definition of WOTUS. The proposed rule was published in the Federal Register on December 7, 2021, and the public comment period closed on February 7, 2022. The current implementation of WOTUS consists of the pre-2015 regulatory definition and practice until the Final Rule is published (EPA 2022).

The USACE and EPA typically have jurisdiction over navigable or traditionally navigable waters, tributaries to navigable or traditionally navigable waters, and adjacent wetlands, as well as additional waters that have a significant nexus to navigable or traditionally navigable waters (i.e., WOTUS). Impacts to WOTUS should be avoided or minimized to the extent possible during project development and construction. A Clean Water Act (CWA) Section 404 permit is required for the discharge of dredged or fill material into WOTUS and mitigation may be required for impacts to WOTUS.

Jurisdictional status can only be determined by the USACE; however, Olsson has provided preliminary jurisdictional interpretation to support the design process and evaluate if impacts to water feature can be removed and/or minimized. Preliminary field reconnaissance (e.g., visual

inspection) was completed to further support Olsson's preliminary jurisdictional interpretation of water features identified during the desktop review to be within or adjacent to project areas. These interpretations are presented further in Section 3 of this report and summarized in Appendix A.

3. DESKTOP REVIEW AND FIELD SURVEY RESULTS

This section includes results from desktop review for water resources and wildlife habitat present at individual project areas with field survey activities conducted for projects screened into the High-Risk category as presented in Tables A.1 and A.2 (Appendix A). A desktop review was also conducted for the project areas to evaluate floodplain hazards, potential air quality impacts, protected areas, and historical buildings present.

As part of the field survey to visually inspect water features and wildlife habitat present at each of the High-Risk category project areas, figures are included in Appendix C with field survey findings, and photographs are included in Appendix D.

3.1 Water Resources – Desktop Review and Field Survey

A desktop review of publicly available datasets was conducted to identify potential water features including wetlands, streams, and other water resources, as well as floodplains for each project. Figures of project sites which have been identified with impacts to water features and/or floodplains can be found in Appendix C.

The USGS NHD provides approximate locations and boundaries of surface waters including stream channel flow lines, lakes, ponds, and impoundments; and the USFWS NWI dataset provides the type of water feature, as well as approximate location and boundaries of probable or historical wetlands and other water resources. Based on the NHD and NWI dataset, the following seven individual projects include water features and are included in the High-Risk project category on Tables A.1 and A.2 (Attachment A):

- Prospect Corridor Improvements
- Suniga Road
- Taft Hill Corridor Improvements
- Timberline and Harmony
- Timberline and Prospect
- Timberline Road North – Segment 1
- Timberline Road North – Segment 2

Each of these projects was recommended for field inspection to evaluate if water features are within and/or adjacent to the respective project boundaries, as well as having potentially jurisdictional water features requiring additional permitting. A summary of September 2022 field inspection activities conducted at each of these sites is included below, except for the Suniga Road project area where ongoing construction prevented field access.

Prospect Corridor Improvements: The site consists of an approximately 1.60-mile-long section of Prospect Road. This site contains several wetland features as well as the riparian corridors and floodplains of the Cache la Poudre River and Boxelder Creek which intersect the Project area. Based on the field survey, select water features along the corridor are anticipated to include both jurisdictional and non-jurisdictional features under current WOTUS definitions. Preparation and submittal of a JD is recommended prior to construction and the current Project boundaries includes impacts to one or more water features as shown on Figures 1.1 and 1.2 (Appendix C). Photos 1 through 4 include field survey observations (Appendix D).

Suniga Road: This site was under active construction and therefore a preliminary field investigation was not performed (Figure 2). Based on desktop review only, Lake Canal is potentially jurisdictional, and the wetland near Iron Horse Park appears isolated and potentially non-jurisdictional. Additional field reconnaissance is recommended to confirm desktop jurisdictional interpretation provided in this report.

Taft Hill Corridor Improvements: The approximately 1.40-mile-long section of Taft Hill Road project area features several wetlands, stormwater drainages, as well as sections of the Trilby Lateral and Fossil Creek. Wetlands occur within the Project boundaries in several locations along the Taft Hill Corridor as do the riparian corridors of Fossil Creek and the Trilby Lateral. Features in this project area are anticipated to be considered jurisdictional by USACE under current WOTUS definitions. Impacts to features within the survey buffer can be avoided by maintaining construction impacts within the project area (e.g., red outline) as shown on Figures 3.1 and 3.2 (Appendix C). Field survey observations are included in Photos 5 through 7 (Appendix D).

Timberline and Prospect: The site is located at the intersection of Timberline Road and Prospect Road, consisting of approximately 0.35-miles of Timberline Road and 0.08-miles of Prospect Road. A portion of Spring Creek as well as its associated floodplain and riparian corridor intersects the project boundary at the southern portion of Timberline Road. While desktop review of NWI data indicated presence of a second riverine feature traveling from the southeast corner of the intersection to the northwest corner, no feature was observed during field survey. At the approximate location of the desktop NWI feature, a dry, narrow channel was encountered along the southeast corner of the intersection and did not exhibit wetland features and terminated into a roadside berm. Further, no evidence of the feature was encountered at the northwest corner of the intersection. Spring Creek is anticipated to be considered jurisdictional by USACE under current WOTUS definitions, however, Project impacts to this feature can be avoided by

maintaining construction impacts within the Project area (e.g., red outline) as shown on Figure 4 (Appendix C). Photos 8 and 9 include observations from the September 2022 field survey (Appendix D).

Timberline Road North – Segment 1: The site consists of an approximately 1.08-mile segment of Timberline Road. Several wetland features were mapped along the western side of the road, including the riparian corridor of Lake Canal which flows beneath Timberline Road at the intersection of International Boulevard, intersecting the Project area. Lake Canal was dry at the time of the field investigation. Features are potentially jurisdictional. Southern features assumed jurisdictional as they are connected to the Cache la Poudre inlet. Impacts at the Cache la Poudre inlet can be avoided if construction is maintained within the Project area (e.g., red outline) shown on Figures 5.1 and 5.2. Based on current Project area layout, the northern water feature will be impacted, however the water feature is anticipated to be non-jurisdictional. Preparation and submittal of a JD is recommended prior to construction. Photos 10 and 11 present select field observations for this Project area.

Timberline Road North – Segment 2: The approximately 1-mile-long portion of Timberline Road crosses over the Larimer and Weld County Ditch. A second feature, the Number 8 Outlet, runs parallel to Timberline Road before turning to the southeast and draining into the Larimer and Weld County Ditch. Both features intersect with the Project boundary (e.g., red outline, Figure 6). Features within the Project area are anticipated to be considered jurisdictional by USACE under current definitions. Based on current Project area boundaries, water feature impacts can be avoided if construction activities are maintained within the Project area as shown on Figure 6 (Appendix C). Field observations are included on Photos 12 and 13 included in Appendix D.

Timberline and Harmony: The site is located at the intersection of Harmony Road and Timberline Road, consisting of approximately 0.44-miles of Timberline Road and 0.09-miles of Harmony Road. The Dixon Canyon Lateral flows beneath Timberline Road at the north side of the intersection. Only the western portion of the lateral was observed as it moves underground and remains underground to the east. The Dixon Canyon Lateral is anticipated to be considered jurisdictional by USACE under current definitions. Based on current Project area boundaries, water feature impacts can be avoided if construction activities are maintained within the Project area as shown on Figure 7 (Appendix C). Photo 14 is included in Appendix D.

3.2. Wildlife Habitat – Desktop Review and Field Survey

Desktop review of the collective project areas resulted in identification of multiple protected species, species of concern, and identified active nests based on review of the IPaC report, CPW NDA nest data, and HPH datasets. Field survey further evaluated the potential for specific species habitat with summary of both desktop and field survey results included in Table 3.1.

Table 3.1. Species of Concern

Species Name	Status	Habitat	Potential Habitat
Mammals			
Black-tailed prairie dog (<i>Cynomys ludovicianus</i>)	State Special Concern	Preferred habitat is shortgrass prairie or grassy plains.	High – Habitat is present, and species was observed during September 2022 field survey within the Timberline and Prospect Project area.
Canada lynx (<i>Lynx canadensis</i>)	Federally Endangered	Habitat includes classic boreal forest zone into the subalpine forest of the western United States, and the boreal/hardwood forest ecotone in the eastern United States.	None – Habitat is not present within the individual project areas.
Gray Wolf (<i>Canis lupus</i>)	Federally Endangered	Can inhabit temperate forests, mountains, tundra, taiga, and grasslands.	None – Habitat is not present within the individual project areas.
Preble’s Meadow Jumping Mouse (<i>Zapus hudsonius preblei</i>)	Federally Threatened	Inhabits well developed riparian habitat with adjacent, relatively undisturbed grassland communities, and a nearby water source.	Low – Potential habitat does exist for this species within individual project areas. Due to distance from established critical habitat, occurrence of this species is unlikely.
Fishes			
Brassy Minnow (<i>Hybognathus hankinsoni</i>)	State Threatened	Occupy stream channels with permanent pools, back waters, and beaver ponds. Feed primarily on plankton.	None – Habitat does not exist for this species within individual project areas.
Common Shiner (<i>Luxilus cornutus</i>)	State Threatened	Habitat generalists that prefer cool, clear streams with gravel substrates, little vegetation, and flowing water.	Low – Habitat does not exist for this species at select individual project areas, however project areas are outside of the species current known range.
Greenback cutthroat trout (<i>Oncorhynchus clarkii stomias</i>)	Federally Threatened	The species prefers sites with cold water streams and well oxygenated water. Only known to occur in the Arkansas and South Platte drainages.	Low – Estimated range extends into the Prospect Corridor Improvements Project area but due to low population, occurrence is unlikely. Habitat does not exist for this species within the other individual project areas.
Pallid Sturgeon (<i>Scaphirhynchus albus</i>)	Federally Endangered	Inhabits the main channel of large, turbid rivers with sandy bottoms and high currents. Currently restricted to the main stem of the Missouri River.	None – Habitat does not exist for this species within individual project areas.

Species Name	Status	Habitat	Potential Habitat
Birds			
Bald Eagle <i>(Haliaeetus leucocephalus)</i>	State Special Concern	This species prefers habitat with tall trees along waterbodies. Foraging habitat includes areas of brushland/cropland interspersion.	Medium – Suitable habitat is present within or in the vicinity of the Suniga Road Project Area. Project located within bald eagle winter range. Habitat does not exist for this species within the other individual project areas.
Burrowing Owl <i>(Athene cunicularia ssp. hypugaea)</i>	State Threatened	Prairie dog colonies serve as suitable breeding habitat.	Medium – Habitat is present, and prairie dogs were observed during September 2022 field survey within the Timberline and Prospect Project area.
Eastern Black Rail <i>(Laterallus jamaicensis ssp. Jamaicensis)</i>	Federally Threatened	Habitat includes shallow wetlands dominated by cattails (<i>Typha spp.</i>), hardstem bulrush (<i>S. acutus</i>) and soft-stemmed bulrush (<i>S. tabernaemontani</i>), with willow (<i>Salix spp.</i>).	Low – Suitable habitat is not present within the individual project areas in such quantity to support occurrence of this species. Therefore, presence of this species within the individual project areas is unlikely.
Ferruginous Hawk <i>(Buteo regalisz)</i>	State Special Concern	Suitable habitat has dense or thick emergent vegetation with high vegetation density as well as a mixture of new and residual growth.	Medium – Suitable habitat is present within or in the vicinity of the Prospect Corridor Improvements Project area. Project located within Ferruginous Hawk breeding range. Habitat does not exist for this species within other individual project areas.
Long-Billed Curlew <i>(Numenius americanus)</i>	State Special Concern	This species is considered a grassland or prairie species associated with ponds, reservoirs, playas, and wet meadows.	None – Habitat does not exist for this species within individual project areas.
Mexican spotted owl <i>(Strix occidentalis lucida)</i>	Federally Threatened	Habitat includes old-growth or mature forests that possess complex structural components.	None – Habitat does not exist for this species within individual project areas.
Piping Plover <i>(Charadrius melodus)</i>	Federally Threatened	Habitat includes sparsely vegetated sandbars and shorelines on river systems, alkaline lakes, beaches, flats, salt marshes, and coastal lagoons.	None – Habitat does not exist for this species within individual project areas.
Whooping Crane <i>(Grus americana)</i>	Federally Endangered,	Wetlands, coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows, rivers, and agricultural fields.	Low – Potential habitat does exist for this species within individual project areas. However, due to distance from established critical habitat, occurrence of this species is unlikely.

Species Name	Status	Habitat	Potential Habitat
Insects			
Monarch Butterfly <i>(Danaus plexippus)</i>	Federal Candidate	Habitat includes landscapes featuring an abundant quantity of milkweed (<i>Asclepias spp.</i>) and other nectar-producing forbs.	Low – Milkweed was sparsely represented at individual project sites during the September 2022 field survey.
Plants			
Ute Ladies' tresses <i>(Spiranthes diluvialis)</i>	Federally Threatened	Inhabits moist meadows associated with perennial stream terraces, floodplains, oxbows, seasonally flooded river terraces, subirrigated or spring-fed abandoned stream channels and valleys, and lakeshores.	Medium - Habitat does exist for this species in the Prospect Corridor Improvements Project area. Habitat does not exist for this species within other individual project areas.
Western Prairie Fringed Orchid <i>(Platanthera praeclara)</i>	Federally Threatened	Most often found in unplowed, calcareous prairies and sedge meadows.	Low – Suitable habitat does not exist for this species within individual project areas.
Reptiles			
Common Garter Snake <i>(Thamnophis sirtalis)</i>	State Special Concern	Restricted to aquatic, wetland, and riparian habitats along the floodplains of streams. Active in shallow water and on land adjacent to water.	Medium – Project areas with water features have potentially suitable habitat for this species.

Notes: State Special Concern is not a statutory category; CPW 2022a, CPW 2022b, USFWS 2022b, and USFWS 2022c.

Based on the desktop review and field survey, the following species of concern have a medium to high likelihood of suitable habitat and presence at one or more of the individual project areas. Additional description of species habitat and presence is described below.

Black-tailed Prairie Dog – Black-tailed prairie dog is a Colorado Species of Concern that is common in open habitats in eastern Colorado. Prairie dogs form colonies of interconnected burrows, often resulting in a loss of vegetation due to grazing or other disturbance activities and are typically active during the day except in the event of extreme temperatures or weather (CPW 2022b). Their burrows provide suitable habitat for burrowing owls (e.g., listed as a state-threatened species in Colorado). Black-tailed prairie dog burrows were observed during the field survey at the Timberline and Prospect Project area and field survey prior to initiation of construction activities is recommended for this Project. Visual inspection of other individual project areas for prairie dog colonies is recommended for individual project areas with exposed or sparsely vegetated ground during finalization of individual project designs and prior to construction.

Bald Eagle – The bald eagle was delisted from federally endangered species status in 2007; however, bald eagles are still protected under the Migratory Bird Treaty Act of 1918 (MBTA; 16 U.S.C. 703) and the BGEPA (16 U.S.C. 668[a]; 50 C.F.R. 22) and are a Colorado Species of Concern. Bald eagles are associated with aquatic habitats, especially large lakes, reservoirs, marshes, and major rivers (Buehler 2020). Bald eagles are also typically found in areas with sufficient prey or carrion resources, particularly small mammals. Based on desktop review, suitable habitat is anticipated to be present within or in the vicinity of the Suniga Road Project area and this Project area is located within a 0.25- and 0.5-mile radius of active bald eagle nests as included in the CWP NDA dataset. Additionally, this Project area is located within Bald Eagle winter range. Additional field survey to monitor nest activity is recommend prior to construction for nests located within a half-mile of the construction site (CPW 2022b).

Burrowing Owl – Burrowing owls are a listed as state-threatened in Colorado and they are protected under the MBTA. Although they are currently widespread throughout western and central North America, populations have declined across much of the species' range. Burrowing owls nest underground and are commonly found in unoccupied prairie dog burrows or other small mammal burrows (Poulin et al. 2020) and nesting most commonly occurs between March 15 and August 31 (CPW 2021). If disturbance is planned to begin prior to March 15 or after August 31, pre-construction nest surveys are recommended following the CPW burrowing owl survey protocol to be conducted between March 15 and October 31, and at least three weeks prior to beginning construction activities (CPW 2021). Potential habitat was observed during the September 2022 field survey within the Timberline and Prospect Project area.

Ferruginous Hawk – Ferruginous hawks are a Colorado Species of Concern and are protected under the MBTA. Ferruginous hawk primarily preys on prairie dogs and ground squirrels east of the Continental Divide, and most often prey on prairie dogs in Colorado, especially in winter. (Colorado Department of Wildlife 2003). In most of their habitat, including Colorado, Ferruginous Hawks prefer grasslands and pastures to cultivated areas with nest building usually occurring in March and are present year-round, most comm only in winter in eastern Colorado. Suitable habitat is present within or in the vicinity of the Prospect Corridor Improvements Project area and the whole of the project areas are located within Ferruginous Hawk breeding range (CPW 2022a). Additional monitoring for nest activity is recommended prior to beginning construction. Should a nest be observed, no surface occupancy (e.g., disturbance beyond that which historically occurred in the area) is allowed within half-mile radius of an active nest. Additionally, no permitted, authorized, or human encroachment activities are allowed within a half-mile radius of active nests from February 1 through July 15. This species is especially prone to nest abandonment during incubation if disturbed (CPW 2020).

Ute ladies'-tresses – This species is a federal candidate with no designated critical habitat. Habitat includes moist meadows associated with perennial stream terraces, floodplains, and oxbows at elevation between 4,300 and 6,850 feet above sea level. Potential habitat does exist

for this species in the Prospect Corridor Improvements Project area. It is recommended that impacts to floodplains and riparian corridors are avoided as much as practicable through design to avoid impacting potential habitat for this species.

Common Garter Snake – This species is a Colorado Species of Special Concern, which is not a statutory category. Its range within Northeastern Colorado is along the South Platte River and its tributaries at elevations below 6,000 feet and is widely distributed along the eastern base of the Front Range. Potential habitat includes marshes, ponds, and the edges of streams, and is basically restricted to aquatic, wetland, and riparian habitats along the floodplains of streams. This species is active in shallow water and on land adjacent to water (CPW 2022b). Portions of individual project areas with these features have potentially suitable habitat for this species. It is recommended that impacts to floodplains and riparian corridors are avoided as much as practicable through design to avoid impacting potential habitat for this species.

Birds of Conservation Concern (BCC)

The USFWS includes birds of conservation concern (BCC) in the IPaC report (Appendix C) to identify migratory and non-migratory bird species in addition to those already designated as federally threatened or endangered to highlight species included in the USFWS' highest conservation priorities. As included in Appendix C, each of the species included below has a listed breeding season and probability of presence in the IPaC report, and construction activities including vegetation removal, trimming, and grading of vegetated areas are recommended to be conducted outside of peak bird breeding season to the maximum extent possible (USFWS 2021). When project activities cannot be scheduled to avoid bird nesting season, field surveys prior to activity initiation are needed to determine if active nests are present within the area of impact and to identify needed buffer areas. Field surveys are to be conducted no more than five days prior to the scheduled disturbance activity if occurring during breeding season. In addition to limiting physical impacts to these species, maintaining existing noise levels during nesting season is also recommended as a national standard conservation goal.

- Bald Eagle (*Haliaeetus leucocephalus*)
- Black Rosy-finch (*Leucosticte atrata*)
- Black Swift (*Cypseloides niger*)
- Brown-capped Rosy-finch (*Leucosticte australis*)
- Cassin's Finch (*Carpodacus cassinii*)
- Chestnut-collared Longspur (*Calcarius ornatus*)
- Clark's Grebe (*Aechmophorus clarkia*)
- Evening Grosbeak (*Coccothraustes vespertinus*)
- Ferruginous Hawk (*Buteo regalis*)
- Lesser Yellowlegs (*Tringa flavipes*)
- Lewis's Woodpecker (*Melanerpes lewis*)
- Long-billed Curlew (*Numenius americanus*)
- Long-eared Owl (*asio otus*)
- Mountain Plover (*Charadrius montanus*)
- Olive-sided Flycatcher (*Contopus cooperi*)
- Pinyon Jay (*Gymnorhinus cyanocephalus*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Sprague's Pipit (*Anthus spragueii*)
- Virginia's Warbler (*Vermivora virginiae*)

Colorado Parks and Wildlife (CPW) NDA Nest Data

As noted above in Section 2, while the projects included in this document are not regulated under the COGCC or related to oil and gas exploration or operation activities, the NDA Nest Data maintained by CPW reflects known raptor nests which are subject to regulations of the MBTA and the BGEPA and should active nests be observed at any of the project locations, construction activities may need to be completed during specific date ranges depending on the type of active nest found. Review of available data indicates that the boundaries of six projects are within a regulatory buffer of one or more identified raptor nests with additional information included in Table A.2 of Appendix A.

For sites with CPW identified nests as well as other nests identified through preconstruction field surveys, site visits are recommended prior to site construction to monitor and document the presence and activity of potential raptors in compliance with MBTA and BGEPA. Based on desktop review, the following project sites are within the buffer areas of one or more identified raptor nest:

- Prospect Corridor Improvements – osprey and red-tailed hawk (RTH)
- Suniga Road – bald eagle
- Timberline Road North – Segment 1 – RTH
- Timberline Road North – Segment 2 – RTH
- Timberline and Carpenter – great horned owl
- Vine Drive & Timberline Road Overpass – RTH

During the September 2022 field survey, the following was observed:

- Prospect Corridor Improvements – a nest, potentially an Osprey nest, was observed near the southeastern reach of the Cache la Poudre River and appears to be inside the project area.
- Suniga Road – active construction was occurring at site, field survey not completed.
- Timberline Road North – Segment 1 – no nests were observed during field survey.
- Timberline Road North – Segment 2 – a potential raptor nest was observed approximately 200 feet outside the Project area.
- Timberline and Carpenter – Project area not included in September 2022 field survey activities.
- Vine Drive & Timberline Road Overpass – Project area not included in September 2022 field survey activities.

Prior to construction activities additional field verification is recommended for individual nest locations and to determine if nests are active. The following nesting season timeframes apply to species found in Larimer County:

- Bald eagles – December 1 and July 31,
- Common raptors – February 15 and July 31
- Small birds in Colorado – April 1 through August 31

Additional nest and seasonal disturbance limitations are included in Table A.2 (Appendix A).

3.3. Floodplain Hazards - Desktop Review

Regulatory floodplains within Larimer County include floodplains for which the County enforces regulations for various forms of development. Floodplain designations are associated with a specific level of flood risk. The National Flood Hazard Layer (NFHL) Larimer County FEMA Floodplain 2021 data shows the mapped designated floodplain according to FEMA and the regulatory floodplain classification for the County (FEMA 2021).

The floodplain data indicates that there are regulatory floodplains located within the project boundaries of four projects and these projects may each require a Floodplain Development Permit. A brief summary of the floodplain zones found within the boundaries of these four projects is included below:

- **Suniga Road:** AE, AE Floodway, and 500-year Flood
- **Prospect Corridor Improvements:** AE, AO, AE Floodway and 500-year Flood
- **Timberline and Prospect:** AE, AE Floodway, and Area with reduced risk due to Levee
- **Timberline Road North – Segment 1:** AE, AE Floodway, and 500-year Flood

The floodplain zones included by project above are defined by FEMA (FEMA n.d.) as follows:

- AE and AE Floodway – 100-year floodplain; the base floodplain where base flood elevations are provided
 - AE zones are areas of inundation by the one-percent-annual-chance flood, including areas with the two-percent wave runoff, elevation less than three feet above the ground, and areas with wave heights less than three feet;
 - A "Regulatory Floodway" is the channel of water feature and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.
- 500-year Flood – A flood having a recurrence interval that has a 0.2-percent chance of being equaled or exceeded during any given year (0.2-percent-chance-annual-flood).
- AO – 100-year floodplain; river or stream flood hazard areas, and areas with a one percent or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from one to three feet.
- Area with reduced risk due to Levee – an area of moderate flood risk; the risk of being flooded is reduced, but not completely removed.

3.4. Air Quality Assessment – Desktop Review

To support the preliminary environmental impacts review, Olsson completed a desktop assessment of potential air quality impacts from proposed roadway improvements across the projects included in this report and located in Fort Collins, Colorado (Appendix D).

Fort Collins, located within Larimer County, Colorado is defined as a nonattainment area for the 2008 and 2015 eight-hour ozone national ambient air quality standards (NAAQS) with Larimer County defined as a Serious nonattainment area for the 2008 eight-hour NAAQS and a Marginal nonattainment area for the 2015 eight-hour NAAQS. The assessment included in Appendix E considered ozone, volatile organic compounds (VOC), oxides of nitrogen (NO_x), carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter 10 microns in diameter or less (PM₁₀), and particulate matter 2.5 microns in diameter or less (PM_{2.5}).

The potential roadway improvement projects included in the air quality assessment are not anticipated to negatively impact “reasonable further progress” as it relates to the state of Colorado demonstrating a path to attainment status for the ozone NAAQS. These improvement projects are also not anticipated to negatively impact NAAQS attainment status for PM₁₀, PM_{2.5}, NO₂, and CO.

The Colorado Department of Transportation (CDOT) will require quantitative analyses of Colorado air emissions and PM₁₀ air emissions for roadway improvement projects that are not exempt as identified in the CDOT Air Quality Project-Level Analysis Guidance document (CDOT 2019).

3.5. Protected Areas – Desktop Review

The USGS GAP 2022 PAD-US dataset is a comprehensive national inventory of protected area boundaries within the United States and includes public lands and parks, wilderness areas, National Wildlife Refuges, reserves, conservation easements, Marine protected areas, as well as the most up-to-date aggregation of Federal lands and waters, National Conservation Easement Database (NCED) easement data, and State updates from those states with capacity to provide new data. This dataset also includes information from the GAP which maps predictions of the spatial distribution of suitable environmental and land cover conditions within the United States for individual species. Mapped areas represent places where the environment is suitable for various species to occur, with notes on land management protocols. Additionally, data from the City of Fort Collins Natural Areas was used to verify and identify any limitations in the previous dataset.

The above datasets indicate that the project boundaries of three sites are within a regulatory boundary of one or more identified protected areas. A brief summary of the protected areas found within the boundaries of these three projects is below:

- **Prospect Corridor Improvements:** Local Conservation areas (Cottonwood Hollow Natural Area; Running Deer Natural Area/Resource Recovery Farm; Running Deer Natural Area; Riverbend Ponds Natural Area); GAP Status code: managed for biodiversity - disturbance events suppressed
- **Taft Hill Corridor Improvements:** Within Fort Collins designated Natural Areas (e.g., Cathy Fromme Prairie Natural Area, Franz Farm)
- **Timberline and Carpenter:** Within Fort Collins designated Natural Areas (Fossil Creek Reservoir Natural Area); GAP Status code: Managed for biodiversity – disturbance events suppressed

3.6. Historical Building – Desktop Review

As noted in in Section 2, presence of historical buildings within and/or adjacent to individual project area boundaries was evaluated through current and historical maps to identify individual project areas with possible historical structures. For all 14 projects reviewed, there are no structures within the project area boundaries as included in this assessment. A 50-foot buffer from the edge of the project area was also evaluated for structures that may abut individual project activities. For the eight projects listed below, further review of cultural resources information may be required prior to finalizing the individual project impact areas and/or if individual project area boundaries are expanded from those included in this assessment.

- **Prospect Corridor Improvements:** No structures currently within Project area. Structures are present within the 50-foot buffer north of Prospect between South Summit View Drive and Boxelder Creek that was also present in 1999 (1977 data not available).
- **Timberline and Harmony:** No structures currently within Project area. One structure currently located within the 50-foot buffer on northwest corner that was also present in 1977.
- **Timberline and Prospect:** No structures currently within Project area. Structures currently within the 50-foot buffer on northeast corner that were constructed between 1977 and 1999 based on aerial maps.
- **Riverside Avenue Road Diet:** No structures currently within Project area. Several buildings within 50-foot buffer along the Project area with some also present on 1977 aerial maps.
- **Vine Drive and Timberline Road Overpass:** No structures currently within Project area. One structure currently within the 50-foot buffer on northeast corner that was also present in 1999 (1977 data not available).
- **Boardwalk and Harmony:** No structures currently within Project area. One structure currently present within the 50-foot buffer on northwest corner that was also present on 1977 aerial maps.

- **Harmony and JFK Parkway/Hogan:** No structures currently within Project area. One structure currently present within the 50-foot buffer on southwest corner that was not present on 1977 aerial maps. Based on review of both the 1977 and 1999 aerial maps, the current intersection appears to have been constructed where past residential and/or commercial infrastructure existed prior to 1999.
- **Shields and Prospect:** No structures currently within Project area. Structures present within the 50-foot buffer on northwest and northeast corners that were also present on 1999 and 1977 aerial maps.

The above summary is preliminary based on desktop review; additional desktop and/or field survey may be required to meet local, state, and/or federal requirements (e.g., based on funding mechanisms, to comply with various regulatory requirements).

4. CONCLUSIONS

The results of the environmental critical issues assessment for the 14 project areas included in this document and summarized in Table A.1 (Appendix A) provide a risk screening for potential environmental resource impacts that may be further avoided and/or require additional site assessment and permitting prior to individual project construction. Of the 14 project sites, seven were identified as having higher environmental resource impact and/or permitting requirement risks and a field survey for visual inspection was conducted in September 2022. Six of these seven sites were visually inspected for water features and wildlife habitat with the remaining one project area inaccessible due to ongoing construction activities (i.e., Suniga Road). Field observations were incorporated into the risk screening evaluation as presented in Appendix A with the following recommendations:

- Four of the seven projects with water features are anticipated to have jurisdictional water features, however impacts can be avoided through design and/or construction activities remaining within the individual project areas.
- Two project areas are anticipated to have jurisdictional and non-jurisdictional water features including potential impacts based on the current individual project areas. An administrative jurisdictional determination (JD) is recommended for submittal prior to completing project design. Additional field survey activities may be recommended depending on the length of time between the September 2022 field survey and initiation of construction activities (e.g., within approximately one year versus multiple years in the future).
- It is recommended that for the one remaining site that was inaccessible (i.e., Suniga Road), a visual field inspection be conducted when accessible to allow further assessment of existing water features, potential WOTUS jurisdiction, and if potential impacts can be avoided through the design process, as well as potentially suitable habitat for species of concern.

Of the 14 project sites, three sites were screened as medium risk based on potential wildlife habitat. These projects were included in the desktop review with identified potential environmental impacts limited to past observed bird nests within or in the vicinity of the individual project areas. These sites were not included for visual inspection as field surveys for the identified species are recommended closer to design finalization and initiation of construction activities. Restrictive site activities based on wildlife habitat (e.g., active nests, etc.) are included in this report for the applicable project sites.

The four remaining sites of the 14 total projects are considered low risk from both a potential environmental resource impact and potential permitting requirements perspective. These projects were included in the desktop review and environmental resource impacts were identified not present within the individual project areas.

Of the 14 project areas, eight sites may require further review of historical structures and/or cultural resources based on desktop review of historical aerial information.

Appendix A, Table A. 1 includes summary tables of the 14 project areas sorted by risk category (e.g., high, medium, and low) with additional detailed information included in Table A.2.

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**APPENDIX A
ENVIRONMENTAL CRITICAL ISSUES
ASSESSMENT SUMMARY TABLES**

Table A.1 - Environmental Critical Issues Assessment Summary - Desktop Review and Field Survey

Project Name / Location	Project Type	Field Survey	Water Impacts	Anticipated WOTUS Features	Potential Wildlife Habitat	Raptor Nest Boundary	FEMA Floodplain	Protected Areas (Non-historical)	Historical Structures
Prospect Corridor Improvements	Corridor Improvements	Visual Inspection: 9/28/2022 and 9/30/2022; Pre-Construction recommended	Yes	Jurisdictional and non-jurisdictional features likely present. Recommend Jurisdictional Determination (JD) submittal. Impacts likely within Project area.	Yes	Yes <i>Nest observed September 2022</i>	Yes	Yes	Structures are present in the 1977 map on the eastern portion of the site, just west of Boxelder Creek.
Suniga Road	New Construction	Attempted on 9/28/22; construction activity at time of site visit; Field investigation not performed.	Yes	Features potentially jurisdictional and non-jurisdictional. Potential impacts within Project Area - <i>Not able to field verify.</i>	Yes	Yes	Yes	No	None
Taft Hill Corridor Improvements	Corridor Improvements	Visual Inspection: 9/20/2022 and 9/27/22; Pre-Construction recommended	Yes	Jurisdictional features likely present. Impacts can be avoided by staying within the Project Area.	Yes	No	No	Yes	None
Timberline & Prospect	Intersection Improvements	Visual Inspection: 9/27/2022; Pre-Construction recommended	Yes	Jurisdictional features likely present. Impacts can be avoided by staying within the Project Area.	Yes	No	Yes	No	Structures are present in the 1977 map located on the southeast corner of intersection.
Timberline Road North - Segment 1	New Construction	Visual Inspection: 9/28/2022; Pre-Construction recommended	Yes	Jurisdictional and non-jurisdictional features likely present. Recommend JD submittal. Southern Project area features may be avoided by staying within the Project Area. Northern feature likely non-jurisdictional and to be impacted.	No	Yes	Yes	No	No Data
Timberline Road North - Segment 2	New Construction	Visual Inspection: 9/28/2022; Pre-Construction recommended	Yes	Jurisdictional features likely present. Depending on final design, impacts may be avoided by staying within the Project area.	No	Yes <i>Nest observed September 2022</i>	No	No	No Data
Timberline & Harmony	Intersection Improvements	Visual Inspection: 9/20/2022; Pre-Construction recommended	Yes	Jurisdictional features likely present. Impacts can be avoided by staying within the Project Area.	No	No	No	No	Structures are present in the 1977 map located on the northwest corner of intersection.

Table A.1 - Environmental Critical Issues Assessment Summary - Desktop Review and Field Survey

Project Name / Location	Project Type	Field Survey	Water Impacts	Anticipated WOTUS Features	Potential Wildlife Habitat	Raptor Nest Boundary	FEMA Floodplain	Protected Areas (Non-historical)	Historical Structures
Riverside Avenue Road Diet	Road Diet	Pre-Construction	No	NA	Yes	No	No	No	Structure is present in the 1977 map.
Timberline & Carpenter	Intersection Improvements	Pre-Construction	No	NA	Yes	Yes	No	Yes	No Data
Vine Drive & Timberline Road Overpass	New Construction	Pre-Construction	No	NA	No	Yes	No	No	No Data
Boardwalk & Harmony	Intersection Improvements	No	No	NA	No	No	No	No	Structures are present in the 1977 map located where the northwest corner of intersection is presently located.
Harmony & JFK/Hogan	Intersection Improvements	No	No	NA	No	No	No	No	The 1977 map depicts a residential community at this location.
Shields & Horsetooth	Intersection Improvements	No	No	NA	No	No	No	No	Structures are present in the 1977 map.
Shields & Prospect	Intersection Improvements	No	No	NA	No	No	No	No	Historical structures within 50-foot boundary

Table A.2 - Detailed Environmental Critical Issues Assessment Summary - Desktop Review and Field Survey

Project Name/Location	Project Type	Description of Proposed Improvements	Field Survey	Water Features	Anticipated WOTUS Features	Potential Wildlife Habitat	Raptor Nests	FEMA Floodplain Zones	Protected Areas (Non-historic)	Historical Buildings within Project Boundary
Prospect Corridor Improvements	Corridor Improvements	Widen to 5 lane section	Field survey confirmed on 9/28/2022 and 9/30/2022 that the site features a combination of riverine, freshwater ponds, freshwater emergent, and forested/shrub wetlands capable of providing habitat to native aquatic species.	Riverine; Freshwater Emergent Wetland; Freshwater Forested/Shrub Wetland; Freshwater Pond	Cache la Poudre River and Boxelder Creek run through the Project; features potentially jurisdictional - field confirmed	Aquatic Sportfish Management Waters; Aquatic Native Species Conservation Waters <i>Field investigation confirmed the site features a combination of riverine and freshwater ponds capable of providing habitat to native aquatic species.</i>	Within 0.24 mi buffer of Active Osprey Nest (no permitted activity March 15 - August 15); Within 0.24 mi buffer of Osprey nest; Within 0.33 mi buffer of Active Red Tailed Hawk (RTH) nest (No permitted activities within 1/2 mile radius of active nests from February 15 through July 15). During September 2022 field survey, a nest was observed near the southeastern reach of the Cache la Poudre River and appears to be inside of the project buffer; potentially an Osprey nest.	Zones: AE; AO; AE Floodway; 500-year Flood	Local Conservation areas (Cottonwood Hollow Natural Area; Running Deer Natural Area/Resource Recovery Farm; Running Deer Natural Area; Riverbend Ponds Natural Area;) GAP Status code: managed for biodiversity - disturbance events suppressed	No structures currently within Project Area. Structures are present within 50-foot buffer north of Prospect between South Summit View Drive and Boxelder Creek, also present in 1999; 1977 data not available.
Suniga Road	New Construction	Construct 4 lane section	Planned, however, construction activity was occurring at time of site visit on 9/28/22. Field investigation was not performed.	Four riverine crossings; freshwater emergent wetland <i>Active construction was occurring at site, field survey not completed.</i>	Lake Canal runs through Project - potentially jurisdictional; emergent wetland near iron horse park seems isolated and potentially non-jurisdictional. <i>Active construction was occurring at site, field survey not completed.</i>	Proximity to Aquatic Native Species Conservation Waters 500 ft buffer. <i>Active construction was occurring at site, field survey not completed.</i>	Within 0.25 mile and 0.5 mile radius of Bald Eagle Active Nest Site (No Surface Occupancy [NSO]) beyond that which historically occurred, within 1/4 mile radius of active nests. No permitted activities within 1/2 mile (radius of active nest sites from December 1 through July 31) Active construction was occurring at site, field survey not completed.	Zones: AE Flood Fringe; AE Floodway; 500-year Flood	None	No structures currently within Project Area or 50-foot buffer.
Taft Hill Corridor Improvements	Corridor Improvements	Improve Shoulders: Add shoulders/widen existing shoulders to improve bicyclist comfort and safety; improve animal crossing/warning signage.	Field survey confirmed on 9/20/2022 and 9/27/2022 that the site features a combination of riverine, freshwater ponds and freshwater emergent wetlands capable of providing habitat to	Freshwater emergent wetlands; Freshwater pond; riverine crossings	Fossil Creek and Trilby Lateral run through Project; features potentially jurisdictional - field confirmed	Aquatic Native Species Conservation Waters. <i>Field survey indicates that site may potentially provide habitat for native aquatic species.</i>	None	Area of Minimal Flood Hazard	Within Fort Collins designated Natural Areas (Cathy Fromme Prairie Natural Area, Franz Farm)	No structures currently within Project Area or 50-foot buffer.
Timberline & Harmony	Intersection Improvements	Add 3rd NB & SB through lanes to improve LOS; Add RT bypass islands to shorten pedestrian crossings.	Field survey confirmed on 9/20/2022 that the site contains a riverine feature.	Potential riverine	Dixon Canyon Lateral runs through top corner of the Project; potentially jurisdictional - field confirmed	None	None	Area of Minimal Flood Hazard	None	No structures currently within Project Area. One structure currently within 50-foot buffer on northwest corner also present in 1977.
Timberline & Prospect	Intersection Improvements	Add 3rd NB & SB through lanes to improve LOS	Field survey confirmed on 9/27/2022 that the site features a combination of riverine and freshwater emergent wetlands capable of providing habitat to native aquatic species.	Riverine; Freshwater Emergent Wetland	Spring Creek runs through the Project; features potentially jurisdictional - field confirmed	Aquatic Native Species Conservation Waters; Aquatic Sportfish Management Waters. <i>Field survey indicates Spring Creek likely provides habitat for native aquatic species. Intersection may also provide habitat for burrowing owls due to the presence of a prairie dog colony.</i>	None	Zones: AE, Flood Fringe; AE Floodway; Area with reduced risk due to Levee	None	No structures currently within Project Area. Structures currently within 50-foot buffer on northeast corner constructed between 1977 and 1999.
Timberline Road North Segment 1	New Construction	Widen to 4 lanes	Field survey confirmed on 9/28/2022 that the site features a combination of riverine and freshwater emergent wetlands capable of providing habitat to native aquatic species.	Riverine; Freshwater Emergent Wetland	Lake Canal runs through the Project as well as the Cache la Poudre Reservoir Inlet; wetlands are near Lake Canal; features potentially jurisdictional - field confirmed	None	Within 0.33 mi buffer of Active RTH nest (No permitted activities within 1/2 mile radius of active nests from February 15 through July 15). No nests were observed in during September 2022 field survey.	Zones: AE Flood Fringe; AE Floodway; 500-year Flood	None	No structures currently within Project Area or 50-foot buffer.
Timberline Road North Segment 2	New Construction	Widen to 4 lanes	Field survey confirmed on 9/28/2022 that the site contains riverine features capable of providing habitat to native aquatic species.	Riverine	Larimer and Weld Canal and No. 8 Outlet run through the Project; features potentially jurisdictional - field confirmed	None	Within 0.33 mi buffer of Active RTH nest (No permitted activities within 1/2 mile radius of active nests from February 15 through July 15). During September 2022 field survey, a potential raptor nest was observed approximately 200 feet outside the Project area.	Area of Minimal Flood Hazard	None	No structures currently within Project Area or 50-foot buffer.
Riverside Avenue Road Diet	Road Diet	Narrow roadway to add two-way cycle track on south side of roadway and associated intersection improvements; transition to 2-way off-street, multi-use path at Lemay	Yes	None	NA	Aquatic Native Species Conservation Waters	None	Area of Minimal Flood Hazard	None	No structures currently within Project Area. Several buildings within 50-foot buffer, some also present in 1977 map.
Timberline & Carpenter	Intersection Improvements	Auxiliary Lane Improvements: Extend WB right-turn and EB left-turn lanes to increase storage and deceleration lengths (Short-Term). Roundabout	Yes	None	NA	Within 0.5 mile buffer of Bald Eagle Roost or Communal Roost site (No permitted activities within radius from November 15 through March 15)	Documented active Great Horned Owl nest within Project Area	Area of Minimal Flood Hazard	Within Fort Collins designated Natural Areas (Fossil Creek Reservoir Natural Area); GAP Status code: Managed for biodiversity - disturbance events suppressed	No structures currently within Project Area or 50-foot buffer.
Vine Drive & Timberline Road Overpass	New Construction	Railroad Viaduct over Vine Street along Timberline	Yes	None	NA	None	Within 0.33 mi buffer of Active RTH nest (No permitted activities within 1/2 mile radius of active nests from February 15 through July 15).	Area of Minimal Flood Hazard	None	No structures currently within Project Area. One structure currently within 50-foot buffer on northeast corner that was present in 1999; 1977 data not available.

Table A.2 - Detailed Environmental Critical Issues Assessment Summary - Desktop Review and Field Survey

Project Name/Location	Project Type	Description of Proposed Improvements	Field Survey	Water Features	Anticipated WOTUS Features	Potential Wildlife Habitat	Raptor Nests	FEMA Floodplain Zones	Protected Areas (Non-historic)	Historical Buildings within Project Boundary
Boardwalk & Harmony	Intersection Improvements	Signal Rebuild: longer NB mast-arm to improve NB signal head alignment, add LT side-of-pole heads, upgrade all LT to FYA; ped. button accessibility; retiming. Access Break at RIRO	No	None	NA	None	None	Area of Minimal Flood Hazard	None	No structures currently within Project Area. One structure currently within 50-foot buffer on northwest corner that was present in 1977.
Harmony & JFK/Hogan	Intersection Improvements	Intersection & Signal Rebuild at JFK/Hogan: remove NB/SB split phase by shifting SB dual LT east (1 NB departure lane), widen south leg to east; add WB RT overlap	No	None	NA	None	None	Area of Minimal Flood Hazard	None	No structures currently within Project Area. One structure currently within 50-foot buffer on southwest corner that appears to have been built between 1977 and 1999.
Shields & Horsetooth	Intersection Improvements	Intersection Rebuild and Access Restriction: Extend SB LT storage, restrict Richmond/Shields intersection by extending median to the north; add WB RT overlap signal and phase. <i>Protect only SB LT</i>	No	None	NA	None	None	Area of Minimal Flood Hazard	None	No structures currently within Project Area or 50-foot buffer.
Shields & Prospect	Intersection Improvements	Add Westbound Right-Turn Lane: Add WB right-turn lane with RT overlap signal. Consider SB protected-only left-turn operation.	No	None	NA	None	None	Area of Minimal Flood Hazard	None	No structures currently within Project Area. Structures present within 50-foot buffer on northwest and northeast corners, confirmed 1977, 1999 and current.

**APPENDIX B
INFORMATION PLANNING AND
CONSULTATION (IPAC) REPORT**



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
Phone: (303) 236-4773 Fax: (303) 236-4005

In Reply Refer To:
Project Code: 2022-0065427
Project Name: Fort Collins Capital Project Prioritization

July 19, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location 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>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.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 Code 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:

Colorado Ecological Services Field Office

Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
(303) 236-4773

Project Summary

Project Code: 2022-0065427

Event Code: None

Project Name: Fort Collins Capital Project Prioritization

Project Type: New Constr - Above Ground

Project Description: The overall project includes multiple individual transportation projects within the City of Fort Collins, in Colorado. The IPAC information is being used for initial analysis within the project areas. There is currently no identified timing for the individual projects, as they are being evaluated before being programmed.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.55579415,-105.08187976278602,14z>



Counties: Larimer County, Colorado

Endangered Species Act Species

There is a total of 12 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. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, 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.

-
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.

Mammals

NAME	STATUS
Canada Lynx <i>Lynx canadensis</i> Population: Wherever Found in Contiguous U.S. There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Gray Wolf <i>Canis lupus</i> Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico. There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4488	Endangered
Preble's Meadow Jumping Mouse <i>Zapus hudsonius preblei</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4090 General project design guidelines: https://ipac.ecosphere.fws.gov/project/VZCIEYKIKNGJ7EGEEUXNQEUUJU/documents/generated/6861.pdf	Threatened

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Mexican Spotted Owl <i>Strix occidentalis lucida</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Whooping Crane <i>Grus americana</i> Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Fishes

NAME	STATUS
Greenback Cutthroat Trout <i>Oncorhynchus clarkii stomias</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2775	Threatened
Pallid Sturgeon <i>Scaphirhynchus albus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska. Species profile: https://ecos.fws.gov/ecp/species/7162	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159	Threatened
Western Prairie Fringed Orchid <i>Platanthera praeclara</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1669	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 Act¹ and the Bald and Golden Eagle Protection Act².

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

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 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 <i>Haliaeetus leucocephalus</i> 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 Oct 15 to Aug 31
Black Rosy-finch <i>Leucosticte atrata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9460	Breeds Jun 15 to Aug 31

NAME	BREEDING SEASON
Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Brown-capped Rosy-finch <i>Leucosticte australis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 15 to Sep 15
Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Chestnut-collared Longspur <i>Calcarius ornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 10
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Ferruginous Hawk <i>Buteo regalis</i> 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/6038	Breeds Mar 15 to Aug 15
Lesser Yellowlegs <i>Tringa flavipes</i> 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 <i>Melanerpes lewis</i> 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 <i>Numenius americanus</i> 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/5511	Breeds Apr 1 to Jul 31
Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15

NAME	BREEDING SEASON
Mountain Plover <i>Charadrius montanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638	Breeds Apr 15 to Aug 15
Olive-sided Flycatcher <i>Contopus cooperi</i> 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
Pinyon Jay <i>Gymnorhinus cyanocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Sprague's Pipit <i>Anthus spragueii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8964	Breeds elsewhere
Virginia's Warbler <i>Vermivora virginiae</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441	Breeds May 1 to Jul 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 (|)

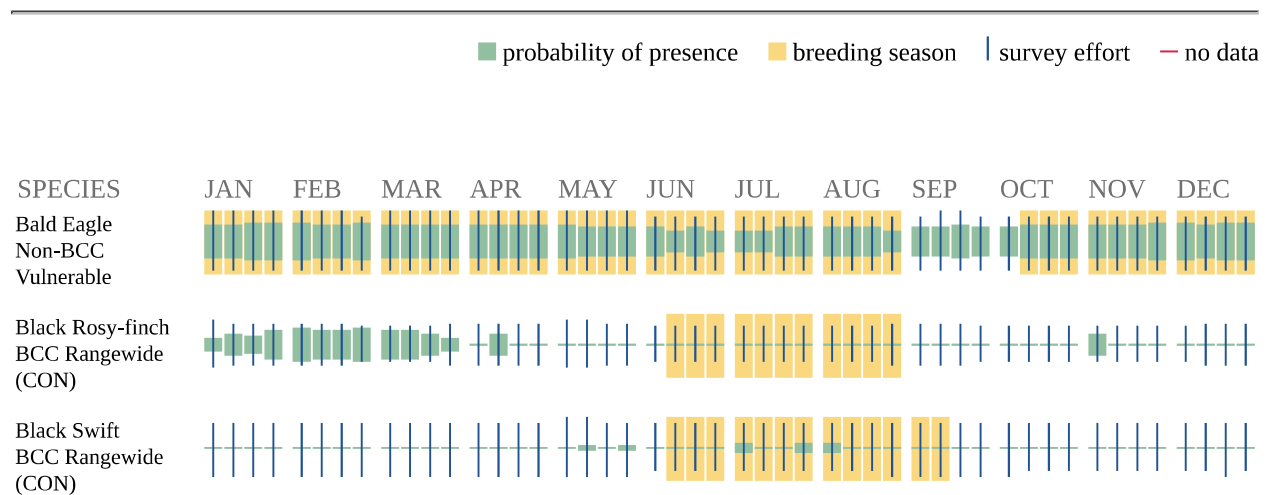
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

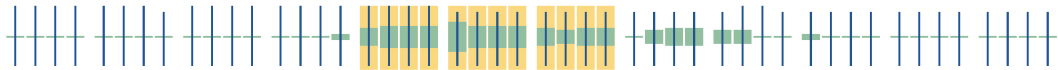
Survey Timeframe

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.



BCC Rangewide
(CON)

Virginia's Warbler
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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](#) 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 [AKN Phenology 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.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPaC User Contact Information

Agency: Olsson

Name: Angie Martell

Address: 1525 Raleigh St #400

City: Denver

State: CO

Zip: 80204

Email: amartell@olsson.com

Phone: 7193091476

APPENDIX C
FIGURES

F:\2021\101501-02000\021-01676\40-Design\GIS\Maps\APRX\Fort Collins TCPPS\Fort Collins TCPPS.aprx PUBLISHED BY: ndimasocio DATE: October 13, 2022



- Riparian Corridor
- Wetland Boundary
- 50 foot Buffer
- TCPPS Project

Prospect Corridor
 TCPPS
 Fort Collins, Colorado
Field Survey Results
 Figure 1.1

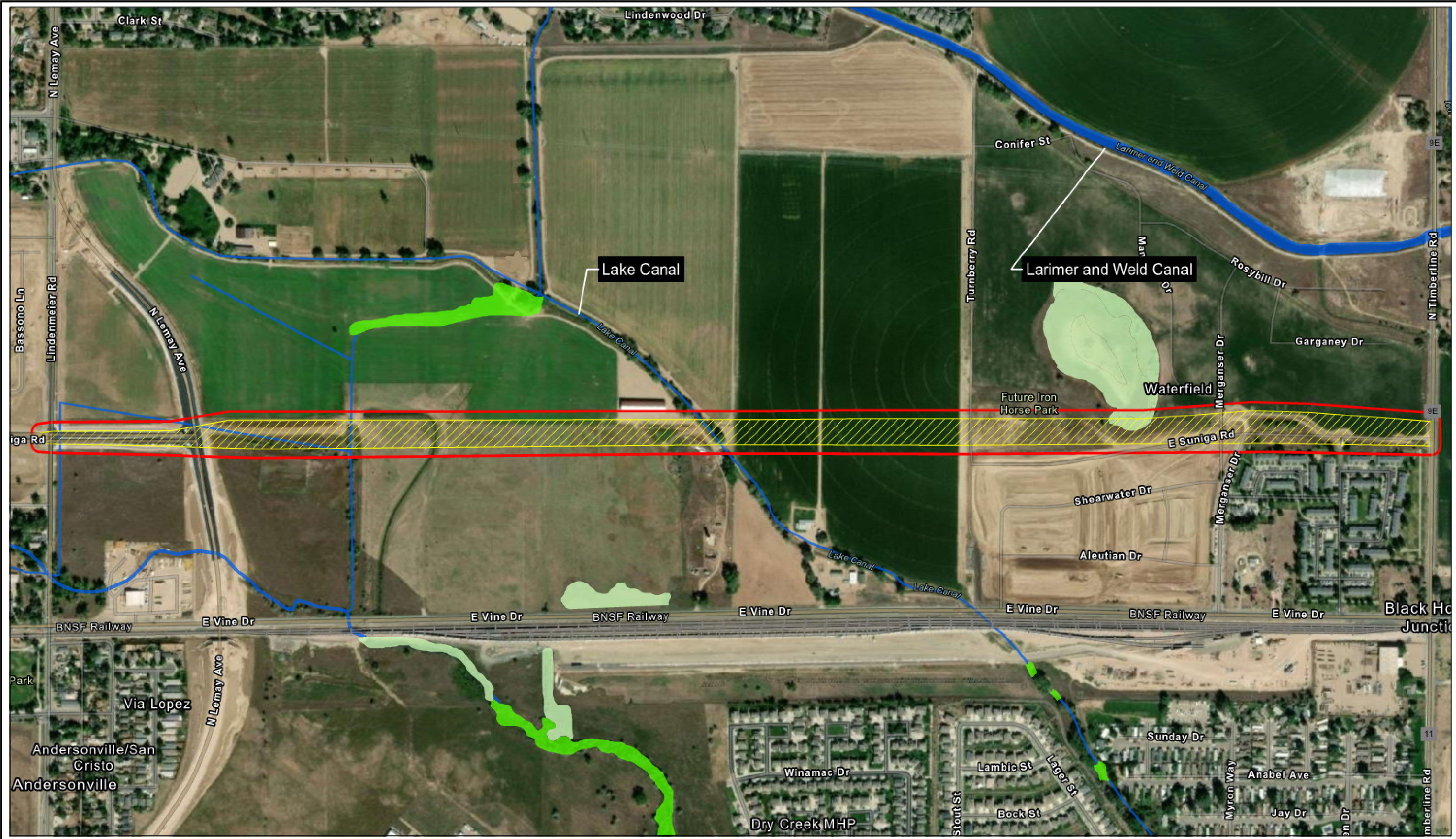
F:\2021\101501-02000\021-0167\640-Design\GIS\Maps\APRX\Fort Collins TCPPS\Fort Collins TCPPS\APRX\Fort Collins TCPPS.aprx PUBLISHED BY: ndimascio DATE: October 05, 2022



- Riparian Corridor
- Wetland Boundary
- TCPPS Project
- 50 foot Buffer

Prospect Corridor
 TCPPS
 Fort Collins, Colorado
Field Survey Results
 Figure 1.2

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WGS 1984 Web Mercator Auxiliary Sphere

- TCPSP Project
- 50 foot Buffer

NWI Features *

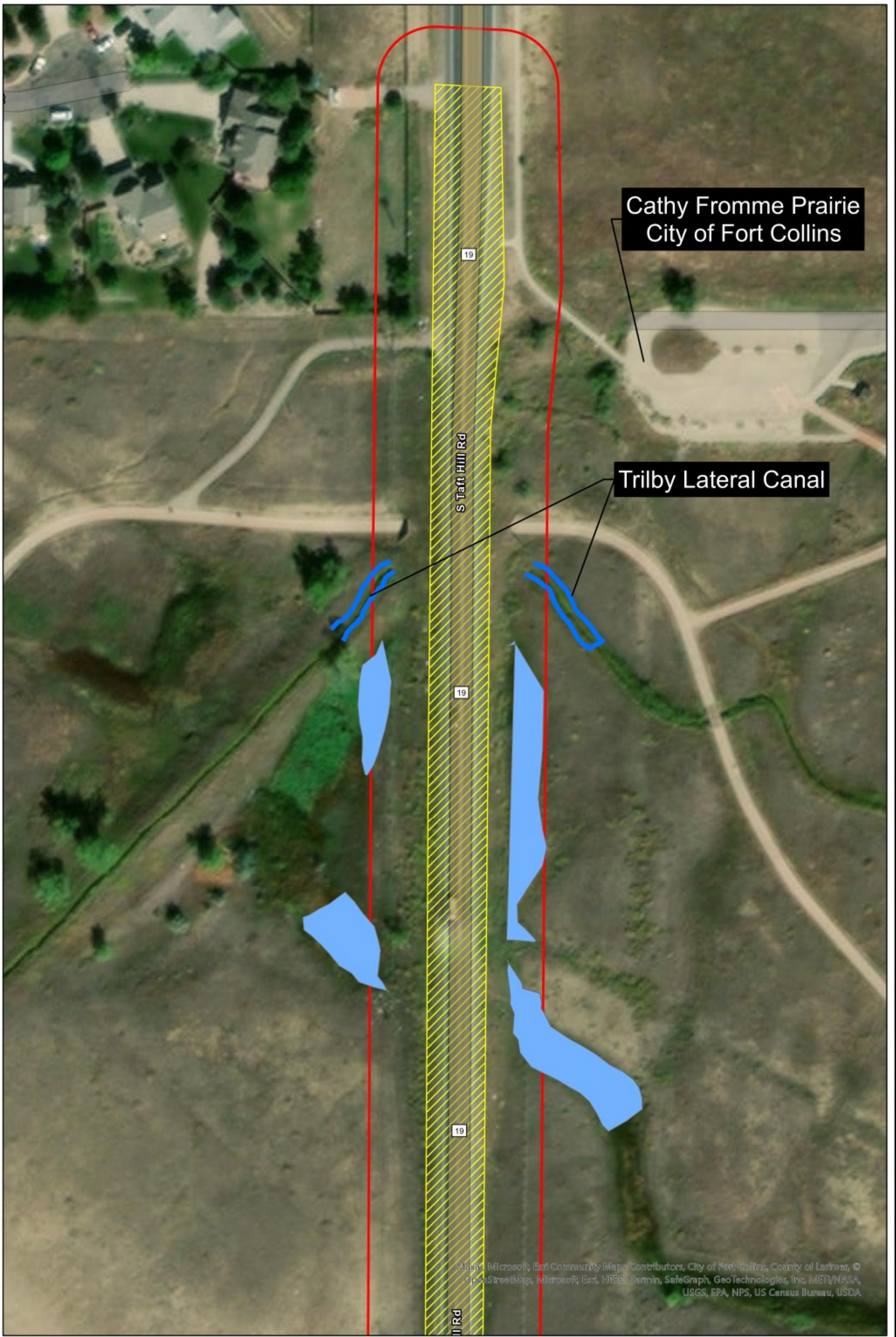
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Riverine

*Note: NWI features were not mapped in the field due to limited site access.

Suniga Road
TCPSP
Fort Collins, Colorado
Field Survey Results
Figure 2

Basemap: ESRI World Imagery

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Cathy Fromme Prairie
City of Fort Collins

Trilby Lateral Canal

S Taft Hill Rd

19

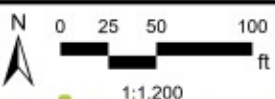
19

19

19

19 Rd

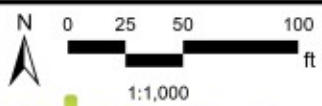
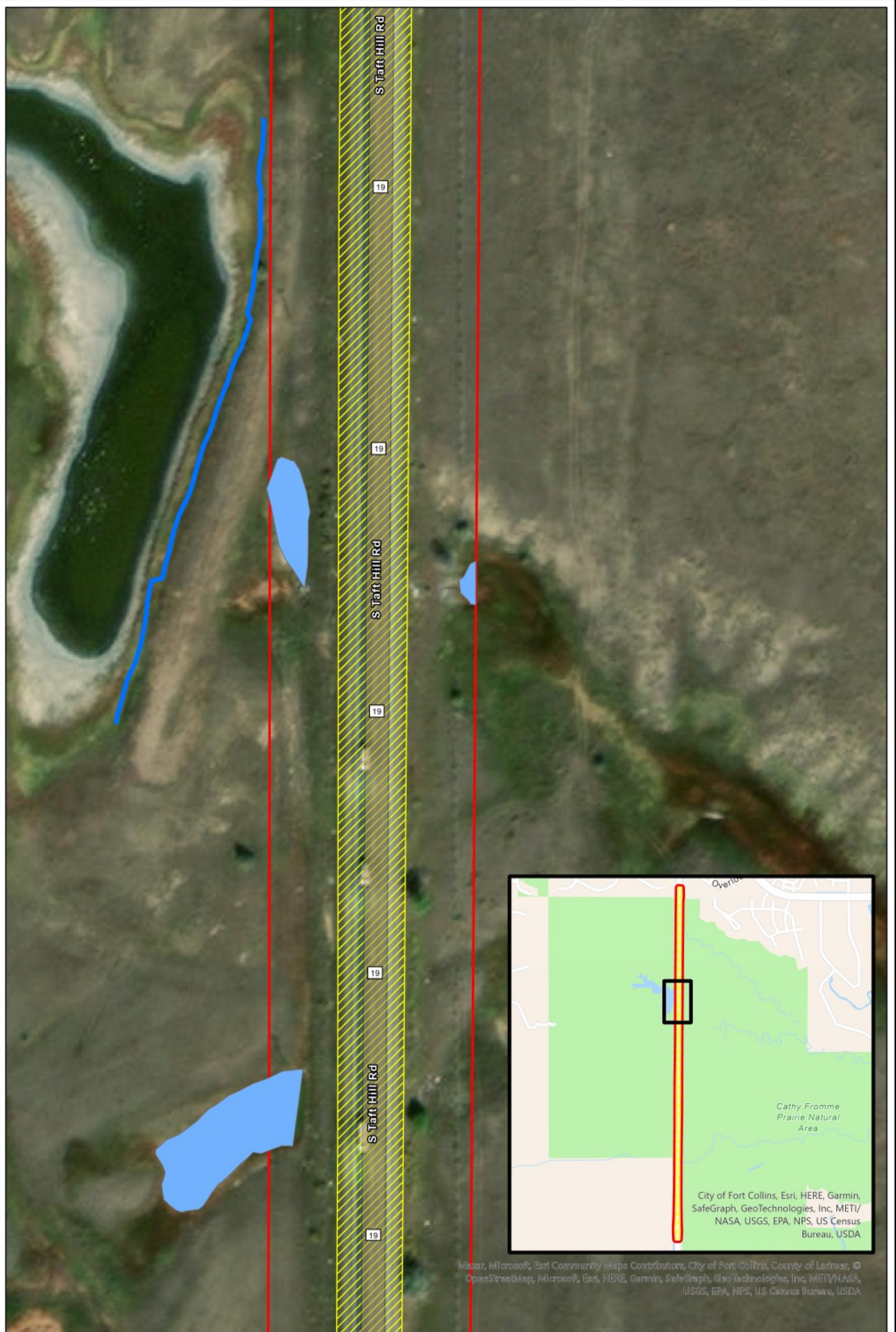
Maxar, Microsoft, Esri Community Maps Contributors, City of Fort Collins, County of Larimer, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA



olsson

- Riparian Corridor
- Wetland Boundary
- 50 foot Buffer
- TCPPS Project

Taft Hill Corridor
 TCPPS
 Fort Collins, Colorado
 Field Survey Results
 Figure 3.1

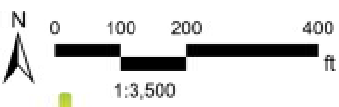
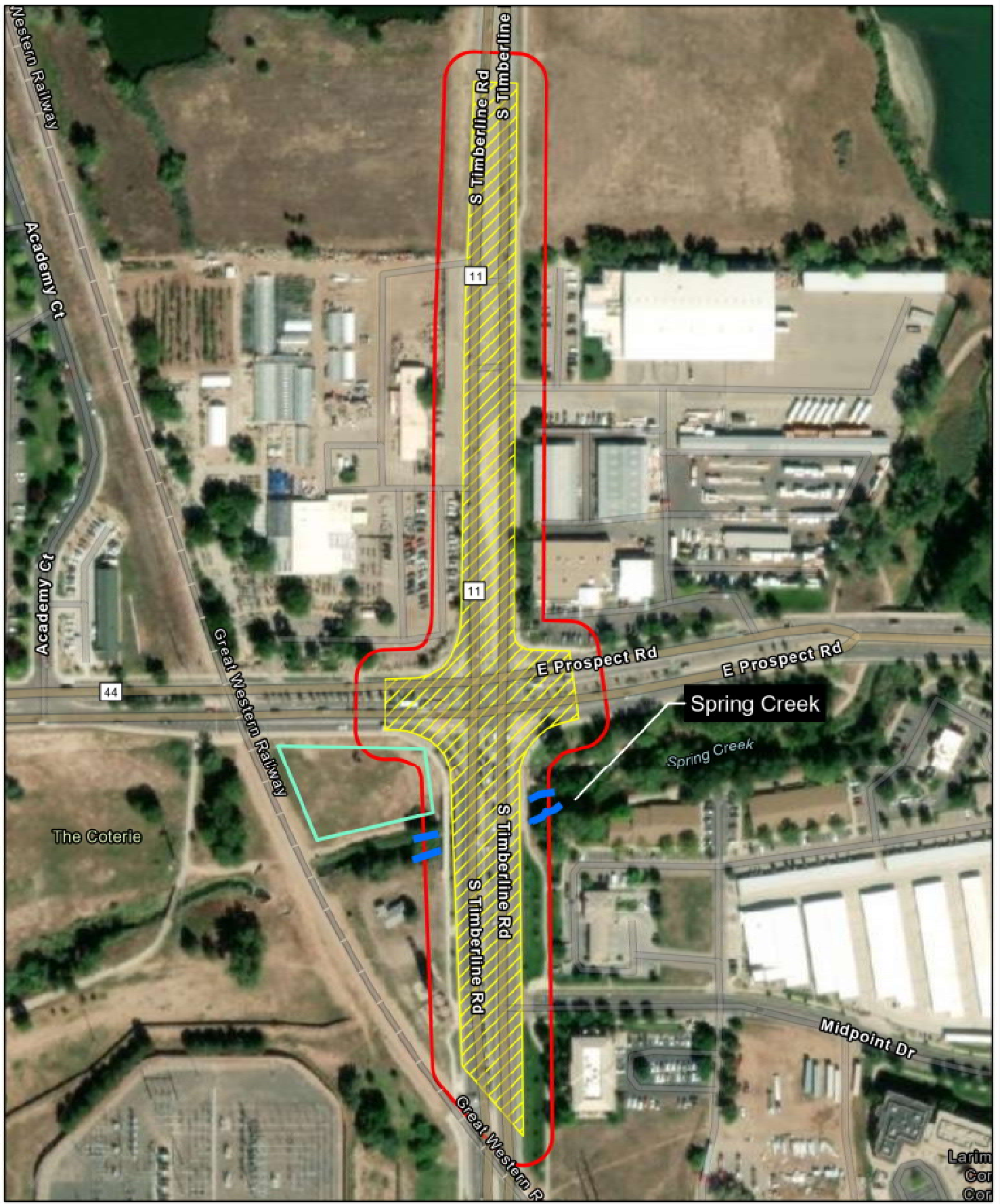


olsson

- Riparian Corridor
- Wetland Boundary
- 50 foot Buffer
- TCPPS Project

Taft Hill Corridor
 TCPPS
 Fort Collins, Colorado
 Field Survey Results
 Figure 3.2

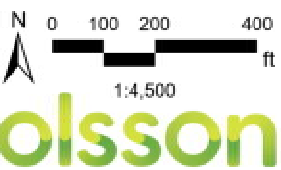
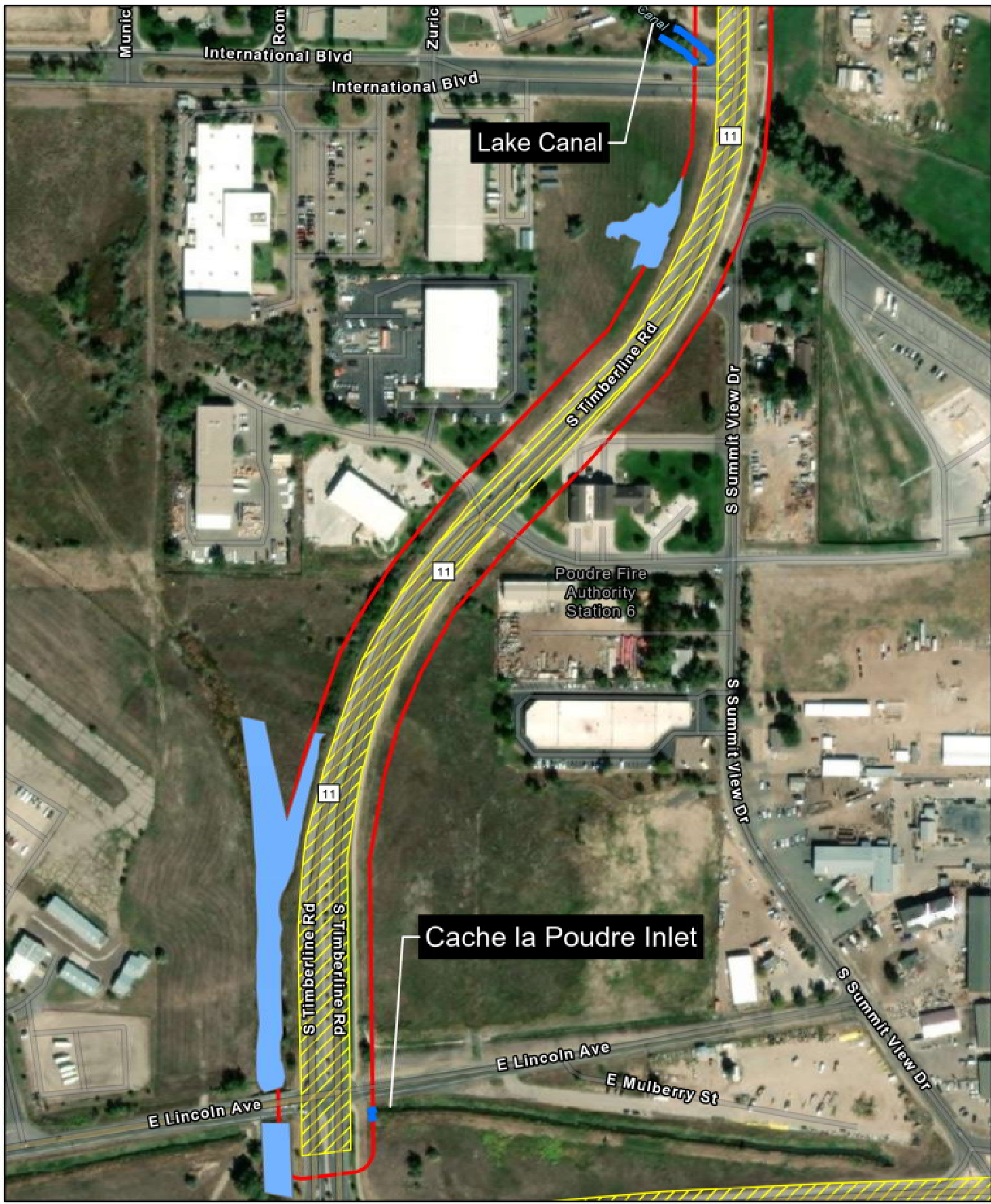
Mapas, Microsoft, Esri Community Maps Contributors, City of Fort Collins, County of Larimer, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA



- Prairie Dog Colony
- Riparian Corridor
- 50 foot Buffer
- TCPPS Project

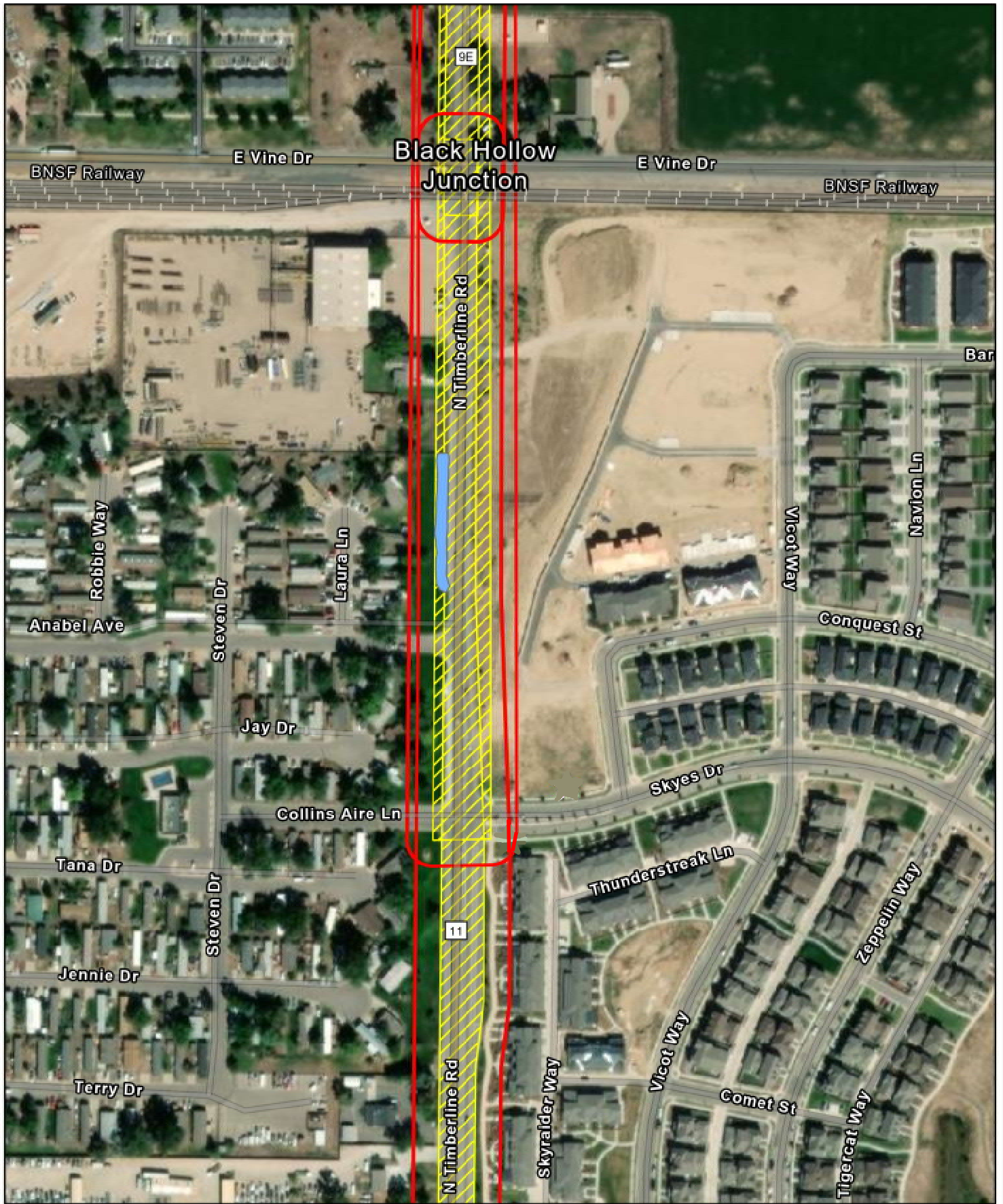
Timberline and Prospect
 TCPPS
 Fort Collins, Colorado
 Field Survey Results
 Figure 4





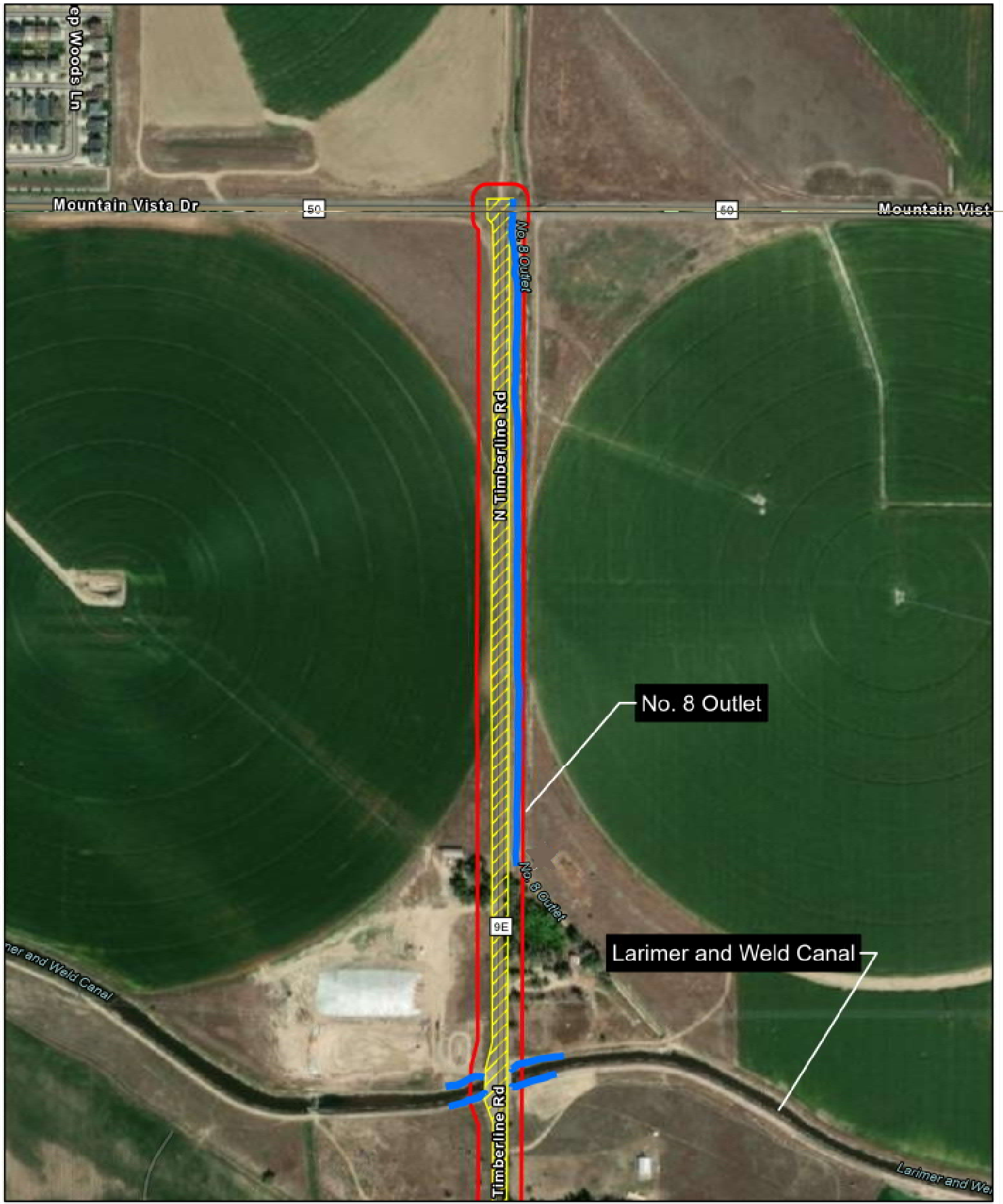
- Riparian Corridor
- Wetland Boundary
- 50 foot Buffer
- TCPPS Project

Timberline Segment 1
 TCPPS
 Fort Collins, Colorado
Field Survey Results
 Figure 5.1



- Wetland Boundary
- 50 foot Buffer
- TCPPS Project

Timberline Segment 1
 TCPPS
 Fort Collins, Colorado
Field Survey Results
 Figure 5.2



Riparian Corridor

50 foot Buffer
 TCPPS Project

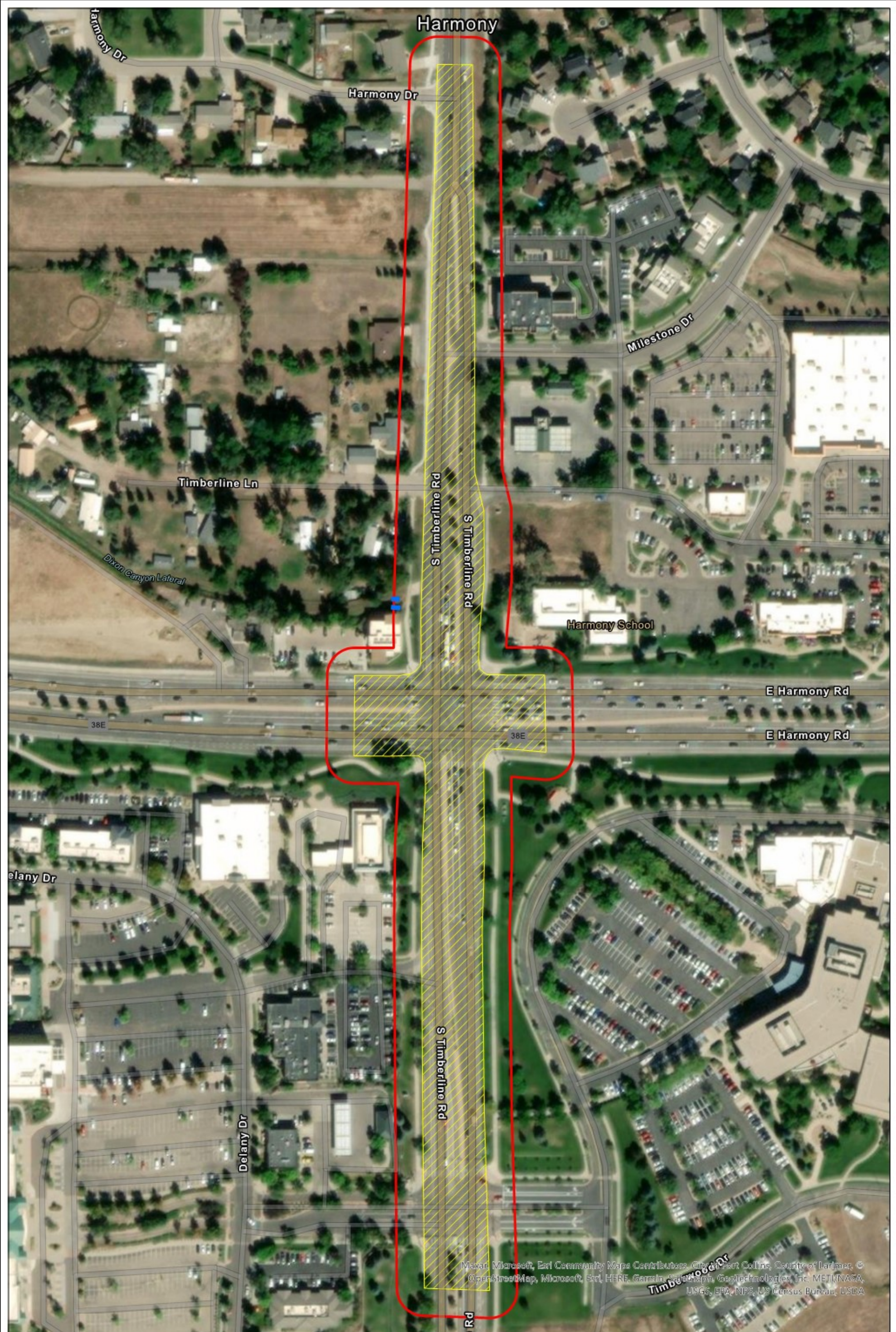
Timberline Segment 2

TCPPS

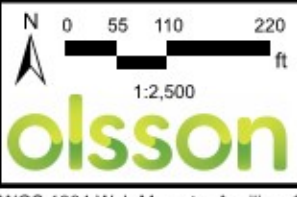
Fort Collins, Colorado

Field Survey Results

Figure 6



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- Riparian Corridor
- TCPPS Project
- 50 foot Buffer

Timberline and Harmony
 TCPPS
 Fort Collins, Colorado
 Field Survey Results
 Figure 7

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**APPENDIX D
PHOTOGRAPHY LOG**



Photo 1. Prospect Corridor Improvements: Facing south, Cache la Poudre River flowing beneath Prospect Road bridge. Evidence of bird and bat habitat was seen on the bridge. East riparian corridor was steep and heavily vegetated.



Photo 2. Prospect Corridor Improvements: Facing east, north side of Boxelder Creek and riparian corridor. Site was heavily vegetated which continued on the south side of the Prospect Road bridge.

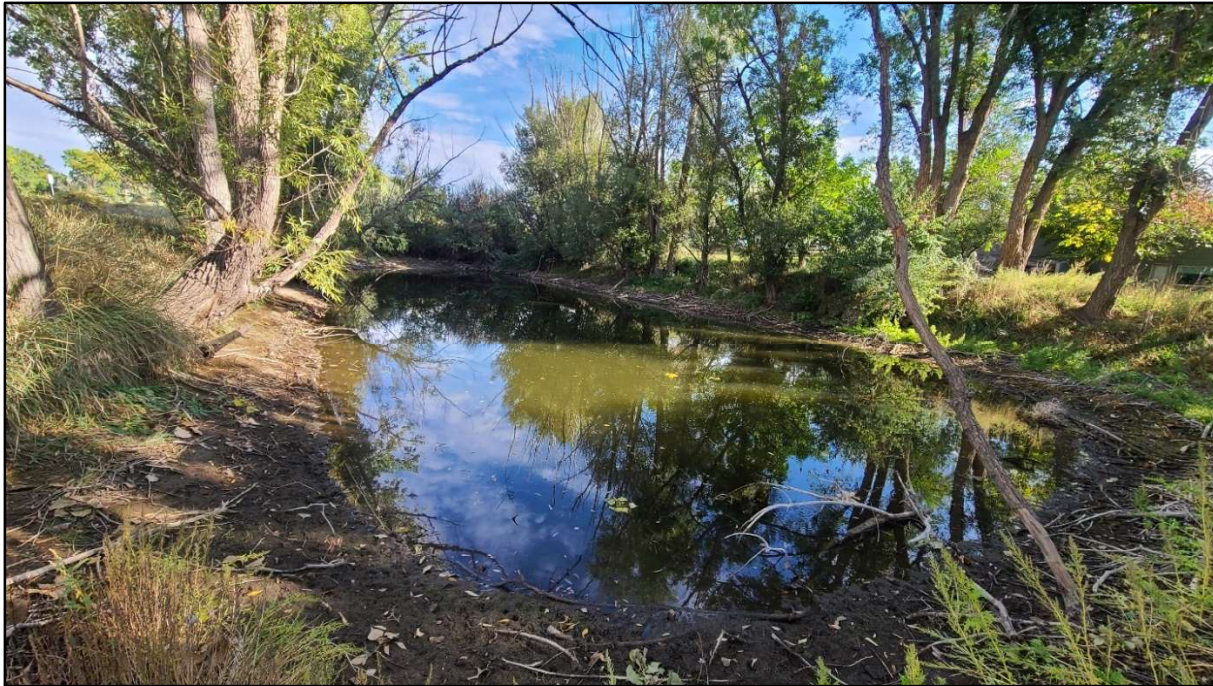


Photo 3. Prospect Corridor Improvements: Facing north, freshwater pond adjacent to a residential property. Pond is partially fed by a groundwater seep located on the southeast corner. Site is heavily vegetated with woody riparian vegetation.



Photo 4. Prospect Corridor Improvements: Facing west, wetland located on the north side of Prospect Road. Wetland located on private property but was inside of the project buffer.



Photo 5. Taft Hill Corridor Improvements: Trilby Lateral Canal on west side of Taft Hill Road. Wetland vegetation was present on both sides of the channel.



Photo 6. Taft Hill Corridor Improvements: Freshwater pond located on the west side of Taft Hill Road. Water level was low, but the northeastern corridor of pond was close to the project buffer.



Photo 7. Taft Hill Corridor Improvements: Facing east, wetland located at the bottom of a roadside berm immediately adjacent to the west side of Taft Hill Road.



Photo 8. Timberline and Prospect: Riparian corridor of Spring Creek channel at the intersection of Prospect Road and Timberline Road. Riparian corridor vegetated with grasses and woody vegetation.



Photo 9. Timberline and Prospect: Heavily vegetated riparian corridor of Spring Creek. Photo taken on the southeast corner of Prospect Road and Timberline Road.



Photo 10. Timberline Road North – Segment 1: Northwest portion of Lake Canal on the Timberline Segment 1 project site. Canal was dry at the time of the investigation but still exhibited wetland vegetation.

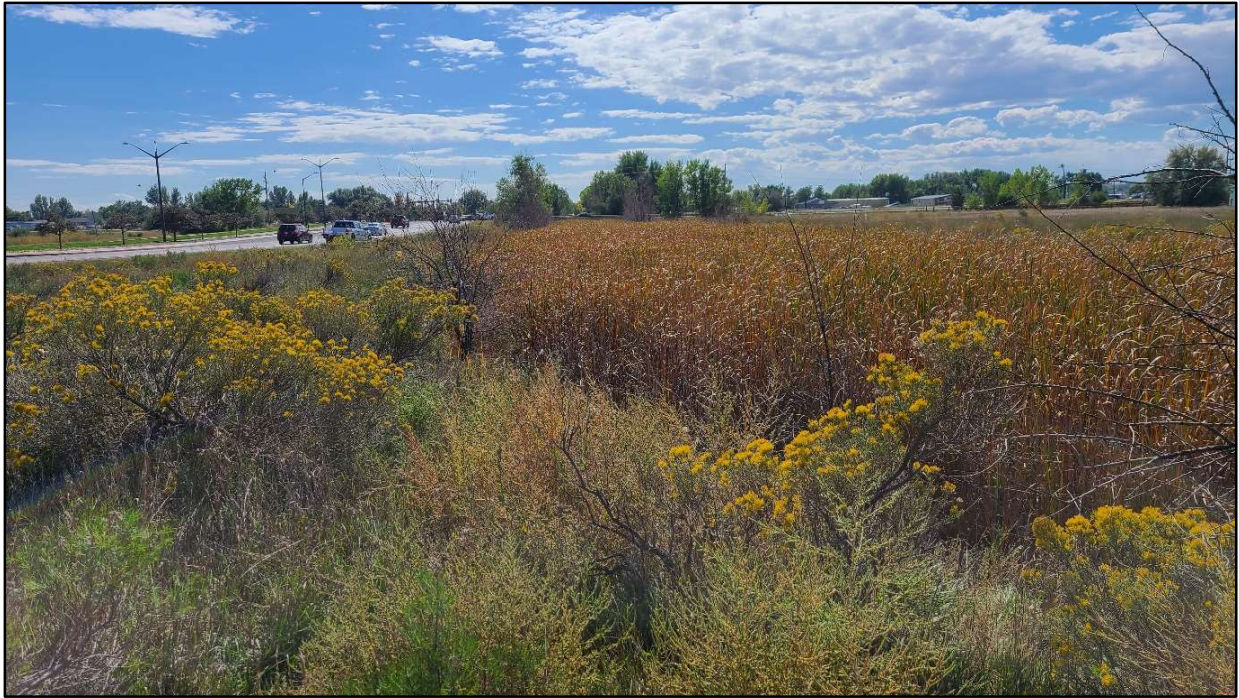


Photo 11. Timberline Road North – Segment 1: Facing south, large wetland complex adjacent to Timberline Road as part of the Timberline Segment 1 project. Standing water was present as well as dense vegetation. Wetland continued south beneath East Mulberry Street where it intercepts the Cache la Poudre inlet.



Photo 12. Timberline Road North – Segment 2: East side of Timberline Road (Segment 2) at the crossing of the Larimer and Weld Canal. Canal had steep banks and was armored with riprap. Vegetation was relatively sparse.



Photo 13. Timberline Road North – Segment 2: Facing north, the Number 8 Canal, parallel to Timberline Road (segment 2). Channel had steep vegetated banks which were eroding in areas. The canal continues south where it eventually drains into the Larimer and Weld Canal.



Photo 14. Timberline and Harmony: Dixon Canyon Lateral entering a culvert on the west side of Timberline Road at the intersection with Harmony Road. Banks were heavily vegetated with a mixture of upland and wetland vegetation.

APPENDIX E
AIR QUALITY MEMORANDUM

MEMO



To:	Belinda Butler-Veytia
From:	Tim Plander
RE:	Fort Collins Roadway Improvements Desktop Air Quality Assessment
Date:	July 29, 2022
Project #:	021-01676
Phase:	203
Task:	203002

NOTES:

Olsson completed a desk top review (DTR) to assess potential air quality impacts from proposed roadway improvements in Fort Collins, Colorado. A summary of each proposed roadway improvement project is provided as an attachment to this memo.

Fort Collins is in Larimer County, Colorado. Larimer County is defined as a nonattainment area for the 2008 and 2015 8-hour ozone national ambient air quality standards.^[1] Specifically, Larimer County is defined as a Serious nonattainment area for the 2008 8-hour NAAQS and a Marginal nonattainment area for the 2015 8-hour NAAQS.

Ozone is a photochemical compound that is formed near the ground in a mixture of volatile organic compounds (VOC), oxides of nitrogen (NO_x), and sunlight. Motor vehicles are the primary source of VOC and NO_x responsible for ground level ozone formation. Motor vehicles also produce particulate matter – particulate matter 10 microns in diameter or less (PM₁₀) and particulate matter 2.5 microns in diameter or less (PM_{2.5}). Larimer County is in attainment for both PM₁₀ and PM_{2.5}. Motor vehicles also produce carbon monoxide (CO). Larimer County is in attainment for the nitrogen dioxide (NO₂) NAAQS and the CO NAAQS.

The potential roadway improvement projects identified in the attachment are not anticipated to negatively impact “reasonable further progress” as it relates to the state of Colorado demonstrating a path to attainment status for the ozone NAAQS. The potential roadway improvement projects identified in the attachment are not anticipated to negatively impact NAAQS attainment status for PM₁₀, PM_{2.5}, NO₂, and CO.

The Colorado Department of Transportation (CDOT) will require quantitative analyses of CO air emissions and PM₁₀ air emissions for roadway improvement projects that are not exempt as identified in the CDOT document named *Air Quality Project-Level Analysis Guidance*.

References

^[1]https://www3.epa.gov/airquality/greenbook/anayo_co.html

Attachment for Air Quality Desktop Review

Project ID	Project Name	Project Type	Potential Improvements	Peak Hour Delay Reduction (Seconds)
2005	Boardwalk & Harmony	Intersection Improvements	Signal Rebuild: longer NB mast-arm to improve NB signal head alignment, add LT side-of-pole heads, upgrade all LT to FYA; ped. button accessibility; retiming	0
2003	Harmony & JFK/Hogan	Intersection Improvements	Intersection & Signal Rebuild at JFK/Hogan: remove NB/SB split phase by shifting SB dual LT east (1 NB departure lane), widen south leg to east; add WB RT overlap	-6.7
1002	Prospect Corridor Improvements	Corridor Improvements	Widen to 5-Lane Section	N/A
1009	Riverside Avenue Road Diet	Road Diet	Lane Repurposing: Narrow roadway to add two-way cycle track on south side of roadway and associated intersection improvements; transition to 2-way off-street, multi-use path at Lemay to Myrtle. Bike lane restriping west on Myrtle to Whedbee.	0
101	Shields & Horsetooth	Intersection Improvements	Intersection Rebuild and Access Restriction: Extend SB LT storage, restrict Richmond/Shields intersection by extending median to the north; add WB RT overlap signal and phase. Protect-only SB LT.	2.2
47	Shields & Prospect	Intersection Improvements	Add Westbound Right-Turn Lane: Add WB right-turn lane with RT overlap signal. Consider SB protected-only left-turn operation.	-5.1
1013	Suniga Road	New Construction	Roadway New Construction	N/A
1003	Taft Hill Corridor Improvements	Corridor Improvements	Improve Shoulders: Add shoulders/widen existing shoulders to improve bicyclist comfort and safety; improve animal crossing/warning signage.	0
169	Timberline & Carpenter	Intersection Improvements	Auxiliary Lane Improvements: Extend WB right-turn and EB left-turn lanes to increase storage and deceleration lengths (Short-Term)	0
97	Timberline & Harmony	Intersection Improvements	Intersection Rebuild: Add 3rd NB & SB through lanes to improve LOS; Add RT bypass islands to shorten pedestrian crossings.	-6.9
94	Timberline & Prospect	Intersection Improvements	Intersection Rebuild: Add 3rd NB & SB through lanes to improve LOS	-2
1014	N Timberline Road - Segment 1	New Construction	Roadway New Construction	N/A
1015	N Timberline Road - Segment 2	New Construction	Roadway New Construction	N/A
2006	Vine Drive & Timberline Road Overpass	New Construction	Overpass: Railroad Viaduct over Vine Drive along Timberline	N/A