



Date: January 5th, 2022
To: Tamara Burke, CDOT I-70 Mountain Corridor NEPA/Mitigation Specialist
From: Erik Schmude, R1 Biologist
Subject: EJMT Drainage & Heat Trace Project, Project No. C 0703-482, Subaccount No. 24210

Summary

It has been determined that the above referenced project will have no effect on any listed threatened and/or endangered species or species proposed for listing or their habitat. Additionally, project activities are not expected to result in impacts to wetlands or waters of the U.S. This decision is based on documentation included in a clearance request email from Tamara Burke on November 29, 2021, including emergency generator location map, generator rendering, generator dimensions, project description, and my biological review of the project area vicinity. No Part C clearance items, pertaining to biological resources, will be required for the project including no requirement for a Wetland Finding, Section 404 Permit, or Senate Bill 40 (SB 40) Wildlife Certification.

Table 1 summarizes the biological resources that may occur or be impacted by the project. The project and resources are discussed in more detail in the text following the table.

Table 1. Summary of resources

Summary of Resources					
Biological Resources					
PMJM?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	ULTO?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
PMJM Block Clearance Zone?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Impacts to SGPI?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Raptors?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Migratory Birds?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
>8,000 feet elev.?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Prairie Dogs?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Noxious weeds prevalent?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	INWMP Needed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If work is on or near USFS or BLM, give name of federal lands: USFS			Yes - USFS easement deed		
Waters of the U.S., including Wetlands; Senate Bill 40					
Wetland Survey Needed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA		
Impacts to wetlands or open waters?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA		
<i>Permanent impacts <0.5 acre to wetlands or open waters?</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA		
<i>Permanent impacts >0.5 acre or >200 linear feet to wetlands or open waters?</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA		
<i>Section 401 Permit from CDPHE?</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA		
<i>Wetland Finding Required?</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA		



Work required within or adjacent to stream or river?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
Work on banks of stream (perennial or intermittent) or rivers?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA

Notes:

PMJM= Preble's meadow jumping mouse (*Zapus hudsonicus preblei*)
 ULTO= Ute ladies' tresses orchid (*Spiranthes diluvialis*)
 CDPHE= Colorado Department of Public Health and Environment
 USFS= United States Forest Service

SGPI = Shortgrass Prairie Initiative
 BLM= Bureau of Land Management
 INWMP= Integrated Noxious Weed Management Plan

Project Description

This is a design build project that will address issues associated with freezing of existing water lines, seep lines and fire hydrant connections, replacing emergency generators, rewinding the fan motors, and making upgrades to the water treatment plant and piping system. With the exception of the emergency generator, the project limits are entirely within the Eisenhower Johnson Memorial Tunnel (EJMT).

General Habitat and Site Conditions

The project area is located at the interface of the Crystalline Subalpine Forest and Alpine Zone within the Southern Rocky Rockies Level III Ecoregion (Chapman et al., 2006). Elevation at the east side of the tunnels is approximately 11,060 feet above mean sea level (amsl): Elevation at the west side of the tunnel is approximately 11,180 amsl. Between the tunnel openings, elevation increases and habitat is characteristic of the Alpine Zone which includes high mountains with steep slopes, ridges, and exposed rocky peaks above timberline. Lower elevations to the east and west of the tunnels is characteristic of the Crystalline Subalpine Forest which is generally dominated by Engelmann spruce, subalpine fir, and occasional aspen groves.

Project work will occur primarily within the tunnels with limited work occurring outside of the tunnels. Work outside of the EJMT will occur only on the west side, within previously disturbed and paved surfaces where a new emergency generator will be constructed. Few wildlife species are expected to occur in the EJMT; however, areas surrounding the work sites provide suitable habitat for variety of wildlife including many mammals and birds. Due to the location of construction activities either inside the tunnel or in the immediately vicinity of the west side of the tunnel openings, existing disturbance (traffic, noise, light etc.) are considered high. No vegetation suitable for nesting birds will be removed by the project and nesting by migratory birds in the tunnels is unlikely. Therefore, a Revision of Section 240: Protection of Migratory Birds is not recommended for the project due to a lack of suitable nesting habitat for migratory bird species.

Wetlands and Aquatic Resources

The nearest known streams, wetlands, and potential SB 40 resources include the headwaters of Straight Creek (on the west side of the EJMT) and Clear Creek (on the east side of the EJMT); however, these resources are located beyond the project limits. Therefore, no wetlands, waters of U.S., or SB 40 Resources will be impacted by project activities.

Federally Threatened and Endangered Species

Ten federally listed threatened or endangered species and one candidate species were evaluated for the project based on the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online system (USFWS, 2021) (Table 2). In order to address the effects that depletion from the South Platte River Basin will have on federally listed species downstream that depend on the river for their survival, CDOT, as a state agency, is participating in the South Platte Water Related Activities Program (SPWRAP). CDOT is cooperating with the FHWA which provides a



federal nexus for the project. In response to the need for formal consultation for the water used from the South Platte basin, FHWA has prepared a Programmatic Biological Assessment (PBA) dated 02/22/2012 that estimates total water usage through 2019. The PBA addresses the following species: pallid sturgeon (*Scaphirhynchus albus*), Piping Plover (*Charadrius melodus*), western prairie fringed orchid (*Platanthera praeclara*), and the Whooping Crane (*Grus americana*). On 04/04/2012, the USFWS signed a Biological Opinion which concurs with this approach and requires a yearly reporting of water usage. The water used for this project will be reported to the USFWS at the year's end after the completion of the project as per the aforementioned consultation. As water depletion impacts to the four downstream species have already undergone consultation with the USFWS under the PBA, these four species are not discussed further.

Of the remaining seven species, only two species, the Canada lynx (*Lynx canadensis*) and greenback cutthroat trout (*Oncorhynchus clarkia stomias*), have potential habitats in the vicinity of the project area. These species are discussed below.

Canada Lynx

This project occurs within the Loveland Pass Lynx Linkage Area (LLA) and is partially within the White River National Forest Mumford Lynx Analysis Unit (LAU). The Loveland Pass LLA area provides for north-south movements near I-70 at the Continental Divide, Peru Creek, Loveland Pass, Laskey Gulch and Jones Gulch. It includes portions of the White River National Forest and the Arapahoe-Roosevelt National Forest. Some portions of the linkage area are highly developed including the I-70 transportation corridor, large ski areas, and towns (USFS 2008). The Mumford LAU is approximately 34,972 acres in size and extends north of I-70 along the Williams Fork Mountain Range to Green Mountain Reservoir and east to the Continental Divide.

According to the most recent and available Canada lynx (lynx) telemetry data from Colorado Parks and Wildlife (CPW), a small number of I-70 crossings, during summer, have occurred near the EJMT. Most of the lynx movements across I-70 have occurred to the east of the EJMT, near Herman Gulch, and during winter (CPW 2012). In Colorado, the lynx inhabits primarily subalpine conifer forests and areas that hold deep snow, generally above 8,000 feet amsl. They rely heavily on snowshoe hares (CPW, No Date). Denning habitat in Colorado typically occurs in late-successional dense spruce-fir forests primarily on north aspects that contain large woody debris, either downed logs or root wads. Much of the surrounding landscape consists of alpine habitat above tree line; dense spruce forest is limited to areas to the west of the project.

The emergency generator will be constructed within existing developed areas, surrounded by pavement and existing transportation infrastructure and suitable habitat for lynx will not be affected. Habitat around I-70 and the tunnels does not provide suitable denning or foraging habitat for lynx as it lacks dense spruce-fir forests. Suitable habitat will not be removed. Given the barrier of I-70, limited cover, and terrain, it does not support habitat sufficient for the lynx and it would be expected that they would not regularly utilize this area for movement or dispersal. Ultimately, the dimensions of the emergency generator will be considerably smaller than the typical semi-truck trailers that continually frequent the area. Additional lighting will be limited to a single light directed at the ground and operated by a switch, as needed. It is expected that the emergency generator will only be used every one to two years, during emergencies only. Based on the above evaluation, and the inclusion of the minimization measures listed below, it has been determined that this project will have no effect on Canada lynx or its habitats, which may occur in the surrounding landscape.

The following **minimization measures** shall be included in the project plans in the General Notes



section:

1) If night work will be needed, temporary night lighting shall be used with directional shielding to focus the lighting onto the driving surface. Lighting will be “dark sky” compliant, will be kept to a concentrated area as possible, and lighting will only be used when necessary and will be monitored to ensure these lighting measures are adhered to.

2) All permanent lighting will be “dark sky” compliant, will be kept to as concentrated of an area as possible, and lighting will only be used when necessary.

3) Stockpiling of construction material will be concentrated to as small of an area as possible and occur on already disturbed areas, native habitat will be avoided.

Greenback Cutthroat Trout

Greenback cutthroat trout distribution is limited to cold-water streams. Re-introduced populations are occur to the east of the project in Herman Gulch and Dry Gulch, located over 3-miles from the EMJT. Therefore, there is no potential for greenback cutthroat trout to occur near the project and it has been determined that the project will have no effect on the species or its habitat.

Table 2. Federally threatened and endangered species potentially found in the project location or with potential to be affected by the project.

Common Name	Scientific Name	Status	Habitat	Suitable Habitat Present or Potential Impacts
Mammals				
Canada lynx	<i>Lynx canadensis</i>	T	Boreal forest	No - see evaluation above
Birds				
Piping Plover	<i>Charadrius melodus</i>	T	Sandy lakeshore beaches and river sandbars	No ¹
Whooping Crane	<i>Grus Americana</i>	E	Mudflats around reservoirs and in agricultural areas	No ¹
Fish				
Greenback cutthroat trout	<i>Oncorhynchus clarkia stomias</i>	T	Cold water streams and lakes	No - see evaluation above
Pallid sturgeon	<i>Scaphirhynchus albus</i>	E	Large, turbid, free-flowing rivers	No ¹
Bonytail	<i>Gila elegans</i>	E	Rivers in the Upper Colorado River Basin	No
Colorado pikeminnow	<i>Pychocheilus lucius</i>	E	Rivers in the Upper Colorado River Basin	No
Humpback chub	<i>Gila cypha</i>	E	Rivers in the Upper Colorado River Basin	No
Razorback sucker	<i>Xyracuchen texanus</i>	E	Rivers in the Upper Colorado River Basin	No
Plants				
Western prairie-fringed orchid	<i>Platanthera praeclara</i>	T	Tallgrass prairies and wetlands along the Platte River	No ¹
Insects				
Monarch Butterfly	<i>Danaus plexippus</i>	C	Grassland, wetlands, and riparian areas especially where nectar plants and milkweed occur.	No

T=Threatened Species, E=Endangered Species , C=Candidate

¹Species potentially impacted by Platte River system water depletions.

Source: Service 2021.



Colorado State Threatened and Endangered Species and U.S. Forest Service Sensitive Species

Based on a review of the Colorado Parks and Wildlife (CPW) Threatened and Endangered List, CPW Species Activity Mapping data, White River National Forest Management Plan, and the Colorado Natural Heritage Program (CNHP) Tracking List, there are 27 listed species with the potential to occur in Clear Creek and Summit Counties (CPW, 2021; CPW, 2020; CNHP, 2019; USFS, 2002). USFS Sensitive Species were evaluated for the project due to the location with an existing USFS highway easement deed within the White River National Forest. Although all of these species are known to occur in the region, no impacts to any of these species are expected as a result of the project due to the limited project footprint within existing developed areas surrounded by transportation infrastructure. Therefore, no mitigation measures are recommended.

Noxious Weeds

According to CDOT's Online Transportation Information System (OTIS) 2017 and 2019 noxious weeds GIS layers, two List-B noxious weeds have been recorded near the EJMTs including Canada thistle (*Cirsium arvense*) and scentless chamomile (*Tripleurospermum inodorum*). Based on the limited vegetation and nature of the work within primarily paved areas surrounded by transportation infrastructure, the project is not expected to result in the introduction or spread of noxious weeds. No noxious weed control measures are recommended for the project.

Biological Clearance

Please consider this memo as biological clearance for the project pending verification by the Environmental Project Manager that the three Canada lynx minimization measures are included as environmental notes within the General Notes section of the final plans. Enter today's date (1/5/2021) on the Form 128 Part B for Wetland Delineation and T&E and State Listed Species (leave boxes unchecked). No Part C clearance items pertaining to biological resources are applicable for this project.

If you should have any questions or need any additional information, please feel free to contact me at (303) 757-9947.

Sincerely,



Erik Schmude

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References

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